ATOM	1	CB	GLU	1	55.967	11.986	66.300	1.00	59.11	AAAA C
ATOM	2	CG	GLU	1	56.138	11.019	65.162	1.00	79.17	AAAA C
ATOM	3	CD	GLU	1	57.382	11.319	64.321	1.00	85.10	AAAA C
ATOM	4	OE1	GLU	1	58.404	10.754	64.796	1.00	86.18	AAAA O
ATOM	5	OE2	GLU	1	57.424	12.013	63.270	1.00	78.70	AAAA O
ATOM	6	C	GLU	1	53.508	12.557	66.350	1.00	48.46	AAAA C
ATOM	7	O	GLU	1	52.685	11.863	65.784	1.00	51.27	AAAA O
ATOM	10	H	GLU	1	54.256	10.338	67.159	1.00	61.64	AAAA H
ATOM	12	CA	GLU	1	54.602	11.778	67.081	1.00	54.77	AAAA C
ATOM	13	H	ILE	2	53.608	13.860	66.375	1.00	37.66	AAAA H
ATOM	15	CA	ILE	2	52.768	14.699	65.604	1.00	40.07	AAAA C
ATOM	16	CB	ILE	2	52.925	16.122	66.160	1.00	41.97	AAAA C
ATOM	17	CG2	ILE	2	52.036	17.122	65.484	1.00	38.50	AAAA C
ATOM	18	CG1	ILE	2	52.560	16.006	67.663	1.00	46.58	AAAA C
ATOM	19	CD1	ILE	2	53.150	17.176	68.498	1.00	32.29	AAAA C
ATOM	20	C	ILE	2	53.122	14.711	64.139	1.00	46.47	AAAA C
ATOM	21	O	ILE	2	54.258	15.029	63.852	1.00	51.66	AAAA O
ATOM	22	H	CYS	3	52.235	14.409	63.196	1.00	49.61	AAAA H
ATOM	24	CA	CYS	3	52.435	14.677	61.773	1.00	38.93	AAAA C
ATOM	25	C	CYS	3	51.429	15.708	61.302	1.00	42.06	AAAA C
ATOM	26	O	CYS	3	50.290	15.521	61.690	1.00	42.37	AAAA O
ATOM	27	CB	CYS	3	52.159	13.415	60.999	1.00	35.66	AAAA C
ATOM	28	SG	CYS	3	53.019	12.004	61.674	1.00	36.98	AAAA S
ATOM	29	H	GLY	4	51.851	16.709	60.580	1.00	42.39	AAAA H
ATOM	31	CA	GLY	4	50.973	17.718	60.003	1.00	47.71	AAAA C
ATOM	32	C	GLY	4	51.703	18.407	58.869	1.00	48.23	AAAA C
ATOM	33	O	GLY	4	52.916	18.345	58.884	1.00	55.36	AAAA O
ATOM	34	H	PRO	5	51.056	19.212	58.048	1.00	49.63	AAAA H
ATOM	35	CD	PRO	5	51.637	19.947	56.860	1.00	45.28	AAAA C
ATOM	36	CA	PRO	5	49.605	19.341	58.083	1.00	41.57	AAAA C
ATOM	37	CB	PRO	5	49.397	20.703	57.474	1.00	44.30	AAAA C
ATOM	38	CG	PRO	5	50.632	21.036	56.683	1.00	46.43	AAAA C
ATOM	39	C	PRO	5	48.932	18.217	57.354	1.00	36.40	AAAA C
ATOM	40	O	PRO	5	49.403	17.094	57.396	1.00	43.35	AAAA O
ATOM	41	H	GLY	6	47.787	18.438	56.795	1.00	39.15	AAAA H
ATOM	43	CA	GLY	6	46.896	17.336	56.350	1.00	39.24	AAAA C
ATOM	44	C	GLY	6	47.710	16.365	55.529	1.00	33.68	AAAA C
ATOM	45	O	GLY	6	48.510	16.863	54.753	1.00	36.00	AAAA O
ATOM	46	H	ILE	7	47.586	15.111	55.788	1.00	35.70	AAAA H
ATOM	48	CA	ILE	7	48.307	14.053	55.141	1.00	37.65	AAAA C
ATOM	49	CB	ILE	7	48.556	12.797	55.933	1.00	36.31	AAAA C
ATOM	50	CG2	ILE	7	49.043	11.700	54.988	1.00	34.67	AAAA C
ATOM	51	CG1	ILE	7	49.561	12.857	57.067	1.00	39.34	AAAA C
ATOM	52	CD1	ILE	7	49.678	14.249	57.668	1.00	40.22	AAAA C
ATOM	53	C	ILE	7	47.338	13.762	53.977	1.00	45.00	AAAA C
ATOM	54	O	ILE	7	46.150	13.843	54.195	1.00	51.52	AAAA O
ATOM	55	H	ASP	8	47.767	13.631	52.751	1.00	45.60	AAAA H
ATOM	57	CA	ASP	8	46.938	13.283	51.631	1.00	44.05	AAAA C
ATOM	58	CB	ASP	8	47.003	14.469	50.651	1.00	44.21	AAAA C
ATOM	59	CG	ASP	8	45.909	14.379	49.600	1.00	43.48	AAAA C
ATOM	60	OD1	ASP	8	45.660	13.262	49.096	1.00	51.77	AAAA O
ATOM	61	OD2	ASP	8	45.253	15.374	49.251	1.00	46.84	AAAA O
ATOM	62	C	ASP	8	47.428	12.000	50.992	1.00	42.10	AAAA C
ATOM	63	O	ASP	8	48.423	12.143	50.330	1.00	48.50	AAAA O
ATOM	64	H	ILE	9	47.096	10.817	51.321	1.00	42.76	AAAA H
ATOM	66	CA	ILE	9	47.441	9.505	50.939	1.00	44.05	AAAA C
ATOM	67	CB	ILE	9	47.212	8.483	52.077	1.00	40.82	AAAA C
ATOM	68	CG2	ILE	9	47.669	7.085	51.653	1.00	36.35	AAAA C
ATOM	69	CG1	ILE	9	47.888	8.917	53.364	1.00	41.17	AAAA C
ATOM	70	CD1	ILE	9	49.376	8.947	53.286	1.00	43.78	AAAA C
ATOM	71	C	ILE	9	46.530	9.137	49.794	1.00	51.48	AAAA C
ATOM	72	O	ILE	9	45.338	9.420	49.832	1.00	63.05	AAAA O
ATOM	73	H	ARG	10	47.004	8.417	48.812	1.00	54.87	AAAA H
ATOM	75	CA	ARG	10	46.283	8.089	47.600	1.00	54.17	AAAA C
ATOM	76	CB	ARG	10	45.703	9.358	47.023	1.00	48.54	AAAA C
ATOM	77	CG	ARG	10	46.361	10.169	45.952	1.00	46.55	AAAA C
ATOM	78	CD	ARG	10	46.002	11.635	46.264	1.00	52.63	AAAA C
ATOM	79	NE	ARG	10	45.082	12.226	45.284	1.00	59.27	AAAA H
ATOM	81	CZ	ARG	10	44.269	13.262	45.498	1.00	56.22	AAAA C
ATOM	82	NH1	ARG	10	44.153	13.891	46.666	1.00	55.14	AAAA H
ATOM	85	NH2	ARG	10	43.455	13.803	44.602	1.00	52.29	AAAA H
ATOM	88	C	ARG	10	47.019	7.373	46.492	1.00	57.23	AAAA C
ATOM	89	O	ARG	10	48.240	7.288	46.281	1.00	56.32	AAAA O
ATOM	90	H	ASN	11	46.248	6.654	45.629	1.00	57.23	AAAA H
ATOM	92	CA	ASN	11	46.800	5.917	44.494	1.00	50.73	AAAA C
ATOM	93	CB	ASN	11	47.704	6.798	43.671	1.00	44.65	AAAA C
ATOM	94	CG	ASN	11	46.878	7.732	42.829	1.00	50.72	AAAA C
ATOM	95	OD1	ASN	11	45.749	7.451	42.403	1.00	72.59	AAAA O
ATOM	96	ND2	ASN	11	47.499	8.869	42.587	1.00	54.38	AAAA H
ATOM	99	C	ASN	11	47.635	4.736	44.915	1.00	53.07	AAAA C
ATOM	100	O	ASN	11	47.303	3.701	44.347	1.00	51.95	AAAA O
ATOM	101	H	ASP	12	48.566	4.822	45.878	1.00	50.96	AAAA H
ATOM	103	CA	ASP	12	49.204	3.570	46.263	1.00	55.44	AAAA C

Figure 1

ATOM	104	CB	ASP	12	50.668	3.568	45.758	1.00 66.47	AAAA C
ATOM	105	CG	ASP	12	50.879	4.026	44.314	1.00 68.25	AAAA C
ATOM	106	OD1	ASP	12	50.441	3.185	43.457	1.00 58.31	AAAA O
ATOM	107	OD2	ASP	12	51.391	5.120	43.989	1.00 70.56	AAAA O
ATOM	108	C	ASP	12	49.061	3.322	47.758	1.00 59.23	AAAA C
ATOM	109	O	ASP	12	49.687	3.849	48.711	1.00 59.65	AAAA O
ATOM	110	N	TYR	13	48.411	2.187	48.036	1.00 59.64	AAAA N
ATOM	112	CA	TYR	13	48.326	1.672	49.397	1.00 64.06	AAAA C
ATOM	113	CB	TYR	13	47.968	0.196	49.409	1.00 64.56	AAAA C
ATOM	114	CG	TYR	13	47.467	-0.357	50.721	1.00 69.18	AAAA C
ATOM	115	CD1	TYR	13	46.216	-0.024	51.249	1.00 72.71	AAAA C
ATOM	116	CE1	TYR	13	45.746	-0.541	52.450	1.00 71.51	AAAA C
ATOM	117	CD2	TYR	13	48.233	-1.247	51.457	1.00 70.36	AAAA C
ATOM	118	CE2	TYR	13	47.789	-1.778	52.661	1.00 71.64	AAAA C
ATOM	119	CZ	TYR	13	46.542	-1.420	53.160	1.00 71.31	AAAA C
ATOM	120	OH	TYR	13	46.144	-1.977	54.358	1.00 63.25	AAAA O
ATOM	122	C	TYR	13	49.622	1.839	50.198	1.00 65.99	AAAA C
ATOM	123	O	TYR	13	49.621	2.321	51.354	1.00 65.01	AAAA O
ATOM	124	N	GLU	14	50.786	1.541	49.594	1.00 63.51	AAAA N
ATOM	126	CA	GLU	14	52.078	1.681	50.218	1.00 63.51	AAAA C
ATOM	127	CB	GLU	14	53.174	1.318	49.219	1.00 68.37	AAAA C
ATOM	128	CG	GLU	14	52.963	-0.078	48.686	1.00 84.62	AAAA C
ATOM	129	CD	GLU	14	53.990	-0.515	47.754	1.00 92.28	AAAA C
ATOM	130	OE1	GLU	14	53.945	-0.161	46.573	1.00 94.82	AAAA O
ATOM	131	NE2	GLU	14	54.920	-1.254	48.361	1.00 98.03	AAAA N
ATOM	134	C	GLU	14	52.434	3.058	50.753	1.00 61.62	AAAA C
ATOM	135	O	GLU	14	53.266	3.292	51.644	1.00 62.09	AAAA O
ATOM	136	N	GLU	15	51.628	4.038	50.349	1.00 57.02	AAAA N
ATOM	138	CA	GLU	15	51.724	5.399	50.831	1.00 51.71	AAAA C
ATOM	139	CB	GLU	15	50.861	6.220	49.911	1.00 43.75	AAAA C
ATOM	140	CG	GLU	15	51.566	6.605	48.648	1.00 59.65	AAAA C
ATOM	141	CD	GLU	15	51.554	8.105	48.428	1.00 72.96	AAAA C
ATOM	142	OE1	GLU	15	51.168	9.005	49.184	1.00 80.58	AAAA O
ATOM	143	NE2	GLU	15	52.016	8.378	47.211	1.00 74.17	AAAA N
ATOM	146	C	GLU	15	51.219	5.530	52.258	1.00 50.15	AAAA C
ATOM	147	O	GLU	15	51.576	6.500	52.940	1.00 48.04	AAAA O
ATOM	148	N	LEU	16	50.440	4.535	52.688	1.00 46.22	AAAA N
ATOM	150	CA	LEU	16	49.913	4.449	54.019	1.00 45.52	AAAA C
ATOM	151	CB	LEU	16	48.950	3.295	54.159	1.00 37.73	AAAA C
ATOM	152	CG	LEU	16	47.502	3.425	53.707	1.00 41.40	AAAA C
ATOM	153	CD1	LEU	16	46.837	2.063	53.790	1.00 42.43	AAAA C
ATOM	154	CD2	LEU	16	46.687	4.424	54.545	1.00 35.93	AAAA C
ATOM	155	C	LEU	16	51.042	4.280	55.039	1.00 51.52	AAAA C
ATOM	156	O	LEU	16	50.913	4.601	56.235	1.00 52.53	AAAA O
ATOM	157	N	LYS	17	52.252	3.936	54.560	1.00 51.01	AAAA N
ATOM	159	CA	LYS	17	53.422	3.914	55.404	1.00 50.73	AAAA C
ATOM	160	CB	LYS	17	54.609	3.252	54.737	1.00 56.10	AAAA C
ATOM	161	CG	LYS	17	54.539	1.733	54.831	1.00 62.40	AAAA C
ATOM	162	CD	LYS	17	54.768	1.278	53.387	1.00 63.85	AAAA C
ATOM	163	CE	LYS	17	55.316	-0.141	53.426	1.00 68.40	AAAA C
ATOM	164	NZ	LYS	17	56.537	-0.225	52.554	1.00 73.83	AAAA N
ATOM	168	C	LYS	17	53.944	5.270	55.852	1.00 44.78	AAAA C
ATOM	169	O	LYS	17	54.492	5.262	56.933	1.00 39.39	AAAA O
ATOM	170	N	ARG	18	53.524	6.344	55.201	1.00 41.15	AAAA N
ATOM	172	CA	ARG	18	53.827	7.673	55.676	1.00 43.01	AAAA C
ATOM	173	CB	ARG	18	53.250	8.702	54.704	1.00 43.97	AAAA C
ATOM	174	CG	ARG	18	53.988	8.764	53.333	1.00 53.60	AAAA C
ATOM	175	CD	ARG	18	52.964	9.362	52.269	1.00 60.34	AAAA C
ATOM	176	NE	ARG	18	52.528	10.703	52.650	1.00 50.00	AAAA N
ATOM	178	CZ	ARG	18	51.628	11.444	52.021	1.00 48.86	AAAA C
ATOM	179	NH1	ARG	18	51.068	10.941	50.943	1.00 47.96	AAAA N
ATOM	182	NH2	ARG	18	51.377	12.656	52.555	1.00 43.72	AAAA N
ATOM	185	C	ARG	18	53.268	7.924	57.077	1.00 44.03	AAAA C
ATOM	186	O	ARG	18	53.402	9.010	57.644	1.00 45.53	AAAA O
ATOM	187	N	LEU	19	52.445	7.069	57.632	1.00 46.36	AAAA N
ATOM	189	CA	LEU	19	51.653	7.282	58.794	1.00 50.25	AAAA C
ATOM	190	CB	LEU	19	50.186	6.924	58.674	1.00 50.83	AAAA C
ATOM	191	CG	LEU	19	49.202	7.371	57.608	1.00 46.43	AAAA C
ATOM	192	CD1	LEU	19	47.946	6.743	57.852	1.00 22.57	AAAA C
ATOM	193	CD2	LEU	19	49.018	8.866	57.495	1.00 45.88	AAAA C
ATOM	194	C	LEU	19	52.210	6.428	59.912	1.00 49.87	AAAA C
ATOM	195	O	LEU	19	51.970	6.810	61.030	1.00 51.54	AAAA O
ATOM	196	N	GLU	20	53.270	5.708	59.652	1.00 49.35	AAAA N
ATOM	198	CA	GLU	20	53.819	4.833	60.679	1.00 49.60	AAAA C
ATOM	199	CB	GLU	20	54.876	3.960	59.982	1.00 57.91	AAAA C
ATOM	200	CG	GLU	20	55.893	4.840	59.272	1.00 70.16	AAAA C
ATOM	201	CD	GLU	20	57.095	4.077	58.757	1.00 69.35	AAAA C
ATOM	202	OE1	GLU	20	58.123	4.795	58.722	1.00 71.38	AAAA O
ATOM	203	OE2	GLU	20	56.993	2.885	58.420	1.00 72.84	AAAA O
ATOM	204	C	GLU	20	54.310	5.417	61.989	1.00 43.55	AAAA C
ATOM	205	O	GLU	20	54.301	4.652	62.937	1.00 40.01	AAAA O
ATOM	206	N	ASN	21	54.633	6.659	62.207	1.00 41.06	AAAA N
ATOM	208	CA	ASN	21	55.054	7.204	63.454	1.00 47.17	AAAA C
ATOM	209	C	ASN	21	54.066	8.141	64.108	1.00 49.76	AAAA C
ATOM	210	O	ASN	21	54.228	8.456	65.303	1.00 48.19	AAAA O

Figure 1A-1

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ATOM  211  CB  ASN  21      56.379   6.093  63.299  1.00 59.11      AAAA C
ATOM  212  CG  ASN  21      57.413   7.051  62.796  1.00 68.38      AAAA C
ATOM  213  OD1 ASN  21      57.499   8.855  63.122  1.00 58.51      AAAA O
ATOM  214  ND2 ASN  21      58.348   7.469  61.890  1.00 77.90      AAAA N
ATOM  216  N   CYS  22      53.129   8.711  63.351  1.00 47.44      AAAA N
ATOM  218  CA  CYS  22      52.107   9.614  63.879  1.00 42.99      AAAA C
ATOM  219  C   CYS  22      51.215   9.089  65.021  1.00 40.43      AAAA C
ATOM  220  O   CYS  22      50.750   7.923  65.069  1.00 36.07      AAAA O
ATOM  221  CB  CYS  22      51.182   9.921  62.690  1.00 44.82      AAAA C
ATOM  222  SG  CYS  22      52.076  10.328  61.118  1.00 39.51      AAAA S
ATOM  223  N   THR  23      51.287   9.801  66.137  1.00 36.24      AAAA N
ATOM  225  CA  THR  23      50.339   9.482  67.204  1.00 43.51      AAAA C
ATOM  226  CB  THR  23      50.944   9.481  68.593  1.00 41.38      AAAA C
ATOM  227  OG1 THR  23      51.410  10.843  68.822  1.00 51.21      AAAA O
ATOM  229  CG2 THR  23      52.110   8.571  68.838  1.00 33.83      AAAA C
ATOM  230  C   THR  23      49.250  10.599  67.116  1.00 44.55      AAAA C
ATOM  231  O   THR  23      48.085  10.414  67.481  1.00 45.95      AAAA O
ATOM  232  N   VAL  24      49.646  11.797  66.689  1.00 33.03      AAAA N
ATOM  234  CA  VAL  24      48.732  12.855  66.442  1.00 35.29      AAAA C
ATOM  235  CB  VAL  24      48.925  13.979  67.456  1.00 30.60      AAAA C
ATOM  236  CG1 VAL  24      48.056  15.157  67.082  1.00 27.21      AAAA C
ATOM  237  CG2 VAL  24      48.656  13.566  68.886  1.00 25.37      AAAA C
ATOM  238  C   VAL  24      48.895  13.447  65.043  1.00 41.52      AAAA C
ATOM  239  O   VAL  24      49.987  13.963  64.791  1.00 44.40      AAAA O
ATOM  240  N   ILE  25      47.855  13.450  64.203  1.00 40.13      AAAA N
ATOM  242  CA  ILE  25      47.908  14.094  62.882  1.00 32.05      AAAA C
ATOM  243  CB  ILE  25      47.113  13.299  61.853  1.00 25.85      AAAA C
ATOM  244  CG2 ILE  25      47.027  14.039  60.542  1.00 18.73      AAAA C
ATOM  245  CG1 ILE  25      47.677  11.896  61.705  1.00 29.80      AAAA C
ATOM  246  CD1 ILE  25      47.169  11.155  60.471  1.00 27.41      AAAA C
ATOM  247  C   ILE  25      47.397  15.490  62.941  1.00 32.92      AAAA C
ATOM  248  O   ILE  25      46.223  15.776  63.213  1.00 40.91      AAAA O
ATOM  249  N   GLU  26      48.264  16.472  63.042  1.00 36.60      AAAA N
ATOM  251  CA  GLU  26      47.832  17.847  63.226  1.00 29.24      AAAA C
ATOM  252  CB  GLU  26      48.875  18.703  63.856  1.00 29.92      AAAA C
ATOM  253  CG  GLU  26      48.490  20.144  64.116  1.00 38.06      AAAA C
ATOM  254  CD  GLU  26      49.561  20.762  65.013  1.00 37.39      AAAA C
ATOM  255  OE1 GLU  26      50.654  20.937  64.489  1.00 41.56      AAAA O
ATOM  256  OE2 GLU  26      49.571  21.175  66.182  1.00 49.16      AAAA O
ATOM  257  C   GLU  26      47.413  18.376  61.869  1.00 37.79      AAAA C
ATOM  258  O   GLU  26      48.161  19.069  61.181  1.00 39.68      AAAA O
ATOM  259  N   GLY  27      46.117  18.104  61.582  1.00 37.28      AAAA N
ATOM  261  CA  GLY  27      45.498  18.503  60.320  1.00 31.17      AAAA C
ATOM  262  C   GLY  27      44.531  17.400  59.893  1.00 33.72      AAAA C
ATOM  263  O   GLY  27      43.988  16.715  60.775  1.00 33.29      AAAA O
ATOM  264  N   TYR  28      44.304  17.209  58.604  1.00 29.24      AAAA N
ATOM  266  CA  TYR  28      43.318  16.189  58.253  1.00 28.93      AAAA C
ATOM  267  CB  TYR  28      42.403  16.794  57.217  1.00 31.53      AAAA C
ATOM  268  CG  TYR  28      43.058  17.256  55.962  1.00 31.78      AAAA C
ATOM  269  CD1 TYR  28      43.704  16.355  55.116  1.00 36.07      AAAA C
ATOM  270  CE1 TYR  28      44.361  16.706  53.967  1.00 28.91      AAAA C
ATOM  271  CD2 TYR  28      43.130  18.572  55.606  1.00 30.98      AAAA C
ATOM  272  CE2 TYR  28      43.769  18.972  54.428  1.00 28.77      AAAA C
ATOM  273  CZ  TYR  28      44.367  18.021  53.652  1.00 31.53      AAAA C
ATOM  274  OH  TYR  28      44.971  18.425  52.464  1.00 44.74      AAAA O
ATOM  276  C   TYR  28      43.953  14.946  57.697  1.00 29.23      AAAA C
ATOM  277  O   TYR  28      45.119  15.147  57.383  1.00 35.58      AAAA O
ATOM  278  N   LEU  29      43.250  13.900  57.445  1.00 26.63      AAAA N
ATOM  280  CA  LEU  29      43.764  12.730  56.803  1.00 29.83      AAAA C
ATOM  281  CB  LEU  29      43.830  11.611  57.856  1.00 27.09      AAAA C
ATOM  282  CG  LEU  29      44.212  10.258  57.242  1.00 31.90      AAAA C
ATOM  283  CD1 LEU  29      45.538  10.396  56.469  1.00 35.03      AAAA C
ATOM  284  CD2 LEU  29      44.551   9.203  58.290  1.00 25.05      AAAA C
ATOM  285  C   LEU  29      42.897  12.342  55.616  1.00 33.84      AAAA C
ATOM  286  O   LEU  29      41.689  12.165  55.806  1.00 43.29      AAAA O
ATOM  287  N   HIS  30      43.369  12.285  54.395  1.00 35.95      AAAA N
ATOM  289  CA  HIS  30      42.601  11.891  53.197  1.00 34.92      AAAA C
ATOM  290  CB  HIS  30      42.893  12.801  52.027  1.00 32.85      AAAA C
ATOM  291  CG  HIS  30      42.372  14.155  52.046  1.00 25.08      AAAA C
ATOM  292  CD2 HIS  30      41.519  14.753  52.907  1.00 40.88      AAAA C
ATOM  293  ND1 HIS  30      42.717  15.120  51.128  1.00 33.66      AAAA N
ATOM  295  CE1 HIS  30      42.080  16.281  51.444  1.00 31.33      AAAA C
ATOM  296  NE2 HIS  30      41.329  16.093  52.539  1.00 37.27      AAAA N
ATOM  298  C   HIS  30      43.173  10.538  52.714  1.00 37.68      AAAA C
ATOM  299  O   HIS  30      44.357  10.388  52.541  1.00 38.70      AAAA O
ATOM  300  N   ILE  31      42.308   9.542  52.584  1.00 40.02      AAAA N
ATOM  302  CA  ILE  31      42.750   8.271  51.992  1.00 39.47      AAAA C
ATOM  303  CB  ILE  31      42.668   7.204  53.063  1.00 37.95      AAAA C
ATOM  304  CG2 ILE  31      43.161   5.830  52.651  1.00 23.86      AAAA C
ATOM  305  CG1 ILE  31      43.481   7.555  54.335  1.00 41.66      AAAA C
ATOM  306  CD1 ILE  31      43.170   6.575  55.473  1.00 28.22      AAAA C
ATOM  307  C   ILE  31      41.884   8.044  50.755  1.00 46.52      AAAA C
ATOM  309  O   ILE  31      40.753   7.589  50.827  1.00 43.56      AAAA O
ATOM  309  N   LEU  32      42.314   8.489  49.556  1.00 49.89      AAAA N
ATOM  311  CA  LEU  32      41.484   8.235  48.380  1.00 49.77      AAAA C
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Figure 1A-2

ATOM	312	CB	LEU	32	41.127	9.515	47.693	1.00	47.49	AAAA C
ATOM	313	CG	LEU	32	42.091	10.688	47.562	1.00	45.33	AAAA C
ATOM	314	CD1	LEU	32	41.517	11.812	46.673	1.00	35.77	AAAA C
ATOM	315	CD2	LEU	32	42.371	11.229	48.960	1.00	49.19	AAAA C
ATOM	316	C	LEU	32	42.136	7.296	47.353	1.00	51.00	AAAA C
ATOM	317	O	LEU	32	43.338	7.370	47.186	1.00	41.36	AAAA O
ATOM	318	N	LEU	33	41.270	6.722	46.497	1.00	50.74	AAAA N
ATOM	320	CA	LEU	33	41.602	6.175	45.197	1.00	49.92	AAAA C
ATOM	321	CB	LEU	33	42.091	7.262	44.192	1.00	34.83	AAAA C
ATOM	322	CG	LEU	33	41.233	8.537	44.164	1.00	33.92	AAAA C
ATOM	323	CD1	LEU	33	41.892	9.587	43.298	1.00	37.49	AAAA C
ATOM	324	CD2	LEU	33	39.823	8.313	43.644	1.00	33.01	AAAA C
ATOM	325	C	LEU	33	42.618	5.073	45.287	1.00	48.35	AAAA C
ATOM	326	O	LEU	33	43.580	5.077	44.538	1.00	54.14	AAAA O
ATOM	327	N	ILE	34	42.543	4.212	46.254	1.00	47.61	AAAA N
ATOM	329	CA	ILE	34	43.523	3.184	46.540	1.00	51.70	AAAA C
ATOM	330	CB	ILE	34	44.101	3.346	47.963	1.00	57.98	AAAA C
ATOM	331	CG2	ILE	34	44.538	2.043	48.600	1.00	48.98	AAAA C
ATOM	332	CG1	ILE	34	45.267	4.371	47.967	1.00	46.70	AAAA C
ATOM	333	CD1	ILE	34	45.561	4.704	49.439	1.00	66.47	AAAA C
ATOM	334	C	ILE	34	42.829	1.844	46.408	1.00	59.85	AAAA C
ATOM	335	O	ILE	34	41.726	1.531	46.856	1.00	60.11	AAAA O
ATOM	336	N	SER	35	43.622	0.833	46.013	1.00	67.79	AAAA N
ATOM	338	CA	SER	35	43.048	-0.511	45.922	1.00	68.80	AAAA C
ATOM	339	CB	SER	35	42.767	-0.882	44.469	1.00	64.16	AAAA C
ATOM	340	OG	SER	35	41.731	-1.846	44.498	1.00	75.76	AAAA O
ATOM	342	C	SER	35	43.928	-1.564	46.537	1.00	70.73	AAAA C
ATOM	343	O	SER	35	44.885	-1.954	45.909	1.00	73.65	AAAA O
ATOM	344	N	LYS	36	43.687	-2.017	47.740	1.00	74.75	AAAA N
ATOM	346	CA	LYS	36	44.465	-3.014	48.421	1.00	76.09	AAAA C
ATOM	347	CB	LYS	36	44.046	-3.131	49.885	1.00	81.22	AAAA C
ATOM	348	CG	LYS	36	45.147	-3.654	50.775	1.00	78.87	AAAA C
ATOM	349	CD	LYS	36	44.693	-4.575	51.887	1.00	81.39	AAAA C
ATOM	350	CE	LYS	36	44.890	-6.025	51.492	1.00	89.38	AAAA C
ATOM	351	NZ	LYS	36	44.371	-6.989	52.506	1.00	91.63	AAAA N
ATOM	355	C	LYS	36	44.252	-4.362	47.753	1.00	81.41	AAAA C
ATOM	356	O	LYS	36	43.145	-4.772	47.451	1.00	78.20	AAAA O
ATOM	357	N	ALA	37	45.371	-5.080	47.615	1.00	88.27	AAAA N
ATOM	359	CA	ALA	37	45.361	-6.396	46.986	1.00	90.10	AAAA C
ATOM	360	CB	ALA	37	46.700	-6.655	46.327	1.00	95.49	AAAA C
ATOM	361	C	ALA	37	45.011	-7.473	47.995	1.00	92.36	AAAA C
ATOM	362	O	ALA	37	45.668	-7.627	49.012	1.00	92.35	AAAA O
ATOM	363	N	SER	38	44.031	-8.301	47.622	1.00	94.31	AAAA N
ATOM	365	CA	SER	38	43.528	-9.352	48.484	1.00	95.70	AAAA C
ATOM	366	CB	SER	38	42.405	-10.164	47.858	1.00	97.44	AAAA C
ATOM	367	OG	SER	38	42.061	-11.276	48.814	1.00103.48		AAAA O
ATOM	369	C	SER	38	44.702	-10.263	48.821	1.00	96.97	AAAA C
ATOM	370	O	SER	38	44.761	-10.778	49.924	1.00	98.06	AAAA O
ATOM	371	N	ASP	39	45.584	-10.415	47.852	1.00	97.99	AAAA N
ATOM	373	CA	ASP	39	46.822	-11.148	47.900	1.00	99.19	AAAA C
ATOM	374	CB	ASP	39	47.579	-11.059	46.652	1.00102.13		AAAA C
ATOM	375	CG	ASP	39	47.896	-12.387	45.948	0.01101.22		AAAA C
ATOM	376	OD1	ASP	39	46.844	-12.978	45.623	0.01101.42		AAAA O
ATOM	377	OD2	ASP	39	48.833	-12.848	45.718	0.01101.41		AAAA O
ATOM	378	C	ASP	39	47.660	-10.564	49.105	1.00	99.40	AAAA C
ATOM	379	O	ASP	39	47.692	-11.056	50.224	1.00	99.15	AAAA O
ATOM	380	N	TYR	40	48.354	-9.479	48.818	1.00100.96		AAAA N
ATOM	382	CA	TYR	40	49.120	-8.706	49.802	1.00101.16		AAAA C
ATOM	383	CB	TYR	40	49.511	-7.393	49.130	1.00103.67		AAAA C
ATOM	384	CG	TYR	40	50.159	-6.281	49.887	1.00107.81		AAAA C
ATOM	385	CD1	TYR	40	50.931	-5.325	49.228	1.00109.56		AAAA C
ATOM	386	CE1	TYR	40	51.540	-4.280	49.910	1.00109.67		AAAA C
ATOM	387	CD2	TYR	40	50.044	-6.115	51.254	1.00109.29		AAAA C
ATOM	388	CE2	TYR	40	50.618	-5.102	51.976	1.00109.83		AAAA C
ATOM	389	CZ	TYR	40	51.372	-4.191	51.276	1.00110.16		AAAA C
ATOM	390	OH	TYR	40	51.999	-3.127	51.993	1.00109.84		AAAA O
ATOM	392	C	TYR	40	48.343	-8.529	51.100	1.00	99.19	AAAA C
ATOM	393	O	TYR	40	47.168	-8.182	51.183	1.00	99.05	AAAA O
ATOM	394	N	LYS	41	49.041	-8.653	52.218	1.00	99.62	AAAA N
ATOM	396	CA	LYS	41	48.443	-9.549	53.546	1.00100.30		AAAA C
ATOM	397	CB	LYS	41	49.385	-9.160	54.599	1.00104.42		AAAA C
ATOM	399	CG	LYS	41	49.218	-10.649	54.814	0.01101.06		AAAA C
ATOM	399	CD	LYS	41	47.776	-11.107	54.919	0.01100.66		AAAA C
ATOM	400	CE	LYS	41	47.205	-10.880	56.308	0.01	99.86	AAAA C
ATOM	401	NZ	LYS	41	47.982	-11.728	57.328	0.01	99.62	AAAA N
ATOM	405	C	LYS	41	48.039	-7.136	53.947	1.00	98.99	AAAA C
ATOM	406	O	LYS	41	47.615	-6.371	53.057	1.00103.33		AAAA O
ATOM	407	N	SER	42	48.198	-6.754	55.221	1.00	91.75	AAAA N
ATOM	409	CA	SER	42	47.825	-5.412	55.604	1.00	85.06	AAAA C
ATOM	410	CB	SER	42	46.385	-5.520	56.147	1.00	95.33	AAAA C
ATOM	411	OG	SER	42	46.547	-6.140	57.426	1.00104.63		AAAA O
ATOM	413	C	SER	42	48.628	-4.715	56.687	1.00	80.78	AAAA C
ATOM	414	O	SER	42	49.326	-5.259	57.538	1.00	81.03	AAAA O
ATOM	415	N	TYR	43	48.495	-3.395	56.676	1.00	73.03	AAAA N
ATOM	417	CA	TYR	43	49.069	-2.480	57.635	1.00	67.25	AAAA C

Figure 1A-3

ATOM	418	CB	TYR	43	49.066	-1.119	56.968	1.00	65.37	AAAA C
ATOM	419	CG	TYR	43	49.953	-1.021	55.727	1.00	63.92	AAAA C
ATOM	420	CD1	TYR	43	50.931	-1.935	55.406	1.00	63.87	AAAA C
ATOM	421	CE1	TYR	43	51.698	-1.781	54.274	1.00	66.09	AAAA C
ATOM	422	CD2	TYR	43	49.770	0.050	54.870	1.00	63.30	AAAA C
ATOM	423	CE2	TYR	43	50.536	0.214	53.728	1.00	67.62	AAAA C
ATOM	424	CZ	TYR	43	51.508	-0.712	53.432	1.00	66.94	AAAA C
ATOM	425	OH	TYR	43	52.262	-0.563	52.305	1.00	65.23	AAAA O
ATOM	427	C	TYR	43	48.248	-2.381	58.925	1.00	64.88	AAAA C
ATOM	428	O	TYR	43	47.088	-2.851	59.030	1.00	62.90	AAAA O
ATOM	429	N	ARG	44	48.782	-1.567	59.825	1.00	57.88	AAAA N
ATOM	431	CA	ARG	44	48.019	-1.285	61.039	1.00	56.45	AAAA C
ATOM	432	CB	ARG	44	47.842	-2.611	61.760	1.00	46.51	AAAA C
ATOM	433	CG	ARG	44	47.915	-2.375	63.244	1.00	54.66	AAAA C
ATOM	434	CD	ARG	44	46.885	-3.327	63.986	1.00	58.54	AAAA C
ATOM	435	NE	ARG	44	47.090	-3.927	65.303	1.00	68.56	AAAA N
ATOM	437	CZ	ARG	44	46.464	-3.536	66.395	1.00	64.82	AAAA C
ATOM	438	NH1	ARG	44	45.644	-4.529	66.132	1.00	61.53	AAAA N
ATOM	441	NH2	ARG	44	46.674	-3.139	67.628	1.00	66.03	AAAA N
ATOM	444	C	ARG	44	48.911	-0.285	61.845	1.00	55.59	AAAA C
ATOM	445	O	ARG	44	49.916	-0.552	62.320	1.00	58.43	AAAA O
ATOM	446	N	PHE	45	48.276	0.866	62.139	1.00	51.13	AAAA N
ATOM	448	CA	PHE	45	48.865	1.944	62.863	1.00	45.94	AAAA C
ATOM	449	CB	PHE	45	48.774	3.249	61.978	1.00	35.89	AAAA C
ATOM	450	CG	PHE	45	49.106	2.937	60.554	1.00	30.29	AAAA C
ATOM	451	CD1	PHE	45	50.373	3.051	59.998	1.00	45.72	AAAA C
ATOM	452	CD2	PHE	45	48.127	2.428	59.728	1.00	35.95	AAAA C
ATOM	453	CE1	PHE	45	50.653	2.715	58.672	1.00	47.76	AAAA C
ATOM	454	CE2	PHE	45	48.358	2.096	58.406	1.00	39.92	AAAA C
ATOM	455	CZ	PHE	45	49.612	2.244	57.967	1.00	46.44	AAAA C
ATOM	456	C	PHE	45	48.181	2.123	64.203	1.00	41.65	AAAA C
ATOM	457	O	PHE	45	47.708	3.223	64.475	1.00	40.99	AAAA O
ATOM	458	N	PRO	46	48.494	1.338	65.212	1.00	43.20	AAAA N
ATOM	459	CD	PRO	46	49.300	0.097	65.132	1.00	47.74	AAAA C
ATOM	460	CA	PRO	46	48.032	1.530	66.560	1.00	43.34	AAAA C
ATOM	461	CB	PRO	46	48.514	0.319	67.300	1.00	44.92	AAAA C
ATOM	462	CG	PRO	46	49.404	-0.464	66.514	1.00	45.48	AAAA C
ATOM	463	C	PRO	46	48.558	2.768	67.233	1.00	41.30	AAAA C
ATOM	464	O	PRO	46	48.329	2.830	68.443	1.00	44.57	AAAA O
ATOM	465	N	LYS	47	49.450	3.533	66.676	1.00	39.33	AAAA N
ATOM	467	CA	LYS	47	49.991	4.679	67.362	1.00	38.10	AAAA C
ATOM	468	CB	LYS	47	51.378	4.981	66.852	1.00	48.07	AAAA C
ATOM	469	CG	LYS	47	52.032	3.995	65.902	1.00	67.95	AAAA C
ATOM	470	CD	LYS	47	53.563	3.976	65.891	1.00	61.33	AAAA C
ATOM	471	CE	LYS	47	54.115	4.648	67.147	1.00	72.19	AAAA C
ATOM	472	NZ	LYS	47	54.024	6.132	66.874	1.00	79.29	AAAA N
ATOM	476	C	LYS	47	49.014	5.848	67.195	1.00	39.76	AAAA C
ATOM	477	O	LYS	47	49.189	6.827	67.952	1.00	35.45	AAAA O
ATOM	478	N	LEU	48	48.300	5.886	66.053	1.00	36.45	AAAA N
ATOM	480	CA	LEU	48	47.370	7.004	65.800	1.00	40.40	AAAA C
ATOM	481	CB	LEU	48	46.823	6.919	64.389	1.00	28.59	AAAA C
ATOM	482	CG	LEU	48	45.947	7.967	63.787	1.00	31.04	AAAA C
ATOM	483	CD1	LEU	48	46.637	9.310	63.878	1.00	36.86	AAAA C
ATOM	484	CD2	LEU	48	45.591	7.738	62.294	1.00	34.49	AAAA C
ATOM	485	C	LEU	48	46.166	7.022	66.867	1.00	42.21	AAAA C
ATOM	486	O	LEU	48	45.271	6.187	66.863	1.00	36.48	AAAA O
ATOM	487	N	THR	49	46.138	8.041	67.673	1.00	38.95	AAAA N
ATOM	489	CA	THR	49	45.045	8.151	68.574	1.00	37.96	AAAA C
ATOM	490	CB	THR	49	45.548	8.207	70.034	1.00	48.69	AAAA C
ATOM	491	OG1	THR	49	46.396	9.340	70.225	1.00	35.90	AAAA O
ATOM	493	CG2	THR	49	46.230	6.957	70.529	1.00	31.99	AAAA C
ATOM	494	C	THR	49	44.230	9.425	68.321	1.00	39.48	AAAA C
ATOM	495	O	THR	49	43.111	9.451	68.837	1.00	34.49	AAAA O
ATOM	496	N	VAL	50	44.735	10.415	67.605	1.00	37.32	AAAA N
ATOM	498	CA	VAL	50	43.995	11.664	67.418	1.00	38.72	AAAA C
ATOM	499	CB	VAL	50	44.293	12.708	68.503	1.00	37.24	AAAA C
ATOM	500	CG1	VAL	50	43.630	14.066	68.208	1.00	29.96	AAAA C
ATOM	501	CG2	VAL	50	43.884	12.311	69.913	1.00	32.52	AAAA C
ATOM	502	C	VAL	50	44.271	12.305	66.048	1.00	37.03	AAAA C
ATOM	503	O	VAL	50	45.195	11.863	65.431	1.00	37.96	AAAA O
ATOM	504	N	ILE	51	43.319	12.939	65.415	1.00	37.49	AAAA N
ATOM	506	CA	ILE	51	43.301	13.575	64.133	1.00	32.48	AAAA C
ATOM	507	CB	ILE	51	42.346	12.864	63.152	1.00	34.51	AAAA C
ATOM	508	CG2	ILE	51	41.995	13.802	61.978	1.00	32.31	AAAA C
ATOM	509	CG1	ILE	51	43.026	11.611	62.671	1.00	30.78	AAAA C
ATOM	510	CD1	ILE	51	42.358	10.559	61.815	1.00	19.69	AAAA C
ATOM	511	C	ILE	51	42.659	14.939	64.431	1.00	34.14	AAAA C
ATOM	512	O	ILE	51	41.546	14.830	64.923	1.00	29.08	AAAA O
ATOM	513	N	THR	52	43.342	16.058	64.238	1.00	33.93	AAAA N
ATOM	515	CA	THR	52	42.806	17.305	64.719	1.00	33.83	AAAA C
ATOM	516	CB	THR	52	43.961	18.338	64.939	1.00	35.39	AAAA C
ATOM	517	OG1	THR	52	44.726	18.567	63.781	1.00	41.28	AAAA O
ATOM	519	CG2	THR	52	44.775	17.926	66.134	1.00	22.01	AAAA C
ATOM	520	C	THR	52	41.741	17.961	63.863	1.00	39.02	AAAA C
ATOM	521	O	THR	52	41.209	19.030	64.243	1.00	38.88	AAAA O

Figure 1A-4

ATOM	522	N	GLU	53	41.524	17.477	62.639	1.00	36.93	AAAA N
ATOM	524	CA	GLU	53	40.434	17.053	61.785	1.00	38.38	AAAA C
ATOM	525	CB	GLU	53	41.064	18.512	60.483	1.00	29.76	AAAA C
ATOM	526	CG	GLU	53	42.961	19.552	60.834	1.00	30.48	AAAA C
ATOM	527	CD	GLU	53	42.517	20.396	59.697	1.00	40.82	AAAA C
ATOM	528	OE1	GLU	53	42.638	19.908	58.556	1.00	57.56	AAAA O
ATOM	529	OE2	GLU	53	42.799	21.559	59.931	1.00	35.74	AAAA O
ATOM	530	C	GLU	53	39.506	16.789	61.388	1.00	39.19	AAAA C
ATOM	531	O	GLU	53	38.922	16.311	62.386	1.00	38.95	AAAA O
ATOM	532	N	TYR	54	39.639	16.353	60.102	1.00	30.60	AAAA N
ATOM	534	CA	TYR	54	38.666	15.342	59.713	1.00	35.96	AAAA C
ATOM	535	CB	TYR	54	37.654	15.902	58.636	1.00	30.71	AAAA C
ATOM	536	CG	TYR	54	38.247	16.476	57.388	1.00	21.18	AAAA C
ATOM	537	CD1	TYR	54	38.487	15.733	56.305	1.00	20.22	AAAA C
ATOM	538	CE1	TYR	54	38.980	16.243	55.086	1.00	21.04	AAAA C
ATOM	539	CD2	TYR	54	38.577	17.844	57.307	1.00	23.97	AAAA C
ATOM	540	CE2	TYR	54	39.049	18.384	56.124	1.00	24.69	AAAA C
ATOM	541	CZ	TYR	54	39.263	17.569	55.032	1.00	26.72	AAAA C
ATOM	542	OH	TYR	54	39.763	18.047	53.847	1.00	37.55	AAAA O
ATOM	544	C	TYR	54	39.405	14.115	59.142	1.00	33.87	AAAA C
ATOM	545	O	TYR	54	40.513	14.360	58.678	1.00	30.40	AAAA O
ATOM	546	N	LEU	55	38.683	13.021	59.004	1.00	23.24	AAAA N
ATOM	548	CA	LEU	55	39.111	11.812	58.454	1.00	30.08	AAAA C
ATOM	549	CB	LEU	55	39.011	10.663	59.510	1.00	14.78	AAAA C
ATOM	550	CG	LEU	55	39.349	9.314	58.818	1.00	26.98	AAAA C
ATOM	551	CD1	LEU	55	40.668	9.477	58.040	1.00	26.66	AAAA C
ATOM	552	CD2	LEU	55	39.496	8.093	59.705	1.00	14.45	AAAA C
ATOM	553	C	LEU	55	38.201	11.548	57.238	1.00	37.43	AAAA C
ATOM	554	O	LEU	55	36.995	11.632	57.427	1.00	39.55	AAAA O
ATOM	555	N	LEU	56	38.700	11.348	56.035	1.00	41.83	AAAA N
ATOM	557	CA	LEU	56	37.955	11.201	54.799	1.00	36.98	AAAA C
ATOM	558	CB	LEU	56	37.998	12.446	53.949	1.00	33.29	AAAA C
ATOM	559	CG	LEU	56	37.984	12.514	52.416	1.00	30.35	AAAA C
ATOM	560	CD1	LEU	56	37.076	11.460	51.821	1.00	47.95	AAAA C
ATOM	561	CD2	LEU	56	37.286	13.807	51.985	1.00	33.47	AAAA C
ATOM	562	C	LEU	56	38.595	10.047	54.008	1.00	39.75	AAAA C
ATOM	563	O	LEU	56	39.714	10.205	53.547	1.00	44.38	AAAA O
ATOM	564	N	LEU	57	37.846	9.008	53.800	1.00	36.68	AAAA N
ATOM	566	CA	LEU	57	38.133	7.932	53.034	1.00	41.53	AAAA C
ATOM	567	CB	LEU	57	37.944	6.588	53.916	1.00	37.00	AAAA C
ATOM	568	CG	LEU	57	39.064	6.534	55.026	1.00	36.13	AAAA C
ATOM	569	CD1	LEU	57	38.513	6.890	56.417	1.00	33.26	AAAA C
ATOM	570	CD2	LEU	57	39.630	5.162	55.039	1.00	24.11	AAAA C
ATOM	571	C	LEU	57	37.203	7.825	51.838	1.00	46.03	AAAA C
ATOM	572	O	LEU	57	35.985	7.993	51.969	1.00	44.78	AAAA O
ATOM	573	N	PHE	58	37.792	7.898	50.642	1.00	47.07	AAAA N
ATOM	575	CA	PHE	58	36.895	8.002	49.467	1.00	48.75	AAAA C
ATOM	576	CB	PHE	58	36.704	9.448	49.102	1.00	46.67	AAAA C
ATOM	577	CG	PHE	58	36.447	9.815	47.692	1.00	54.66	AAAA C
ATOM	578	CD1	PHE	58	37.413	9.706	46.697	1.00	55.19	AAAA C
ATOM	579	CD2	PHE	58	35.200	10.301	47.326	1.00	53.86	AAAA C
ATOM	580	CE1	PHE	58	37.124	10.063	45.396	1.00	50.36	AAAA C
ATOM	581	CE2	PHE	58	34.885	10.655	46.011	1.00	41.84	AAAA C
ATOM	582	CZ	PHE	58	35.877	10.521	45.037	1.00	46.50	AAAA C
ATOM	583	C	PHE	58	37.351	7.052	48.379	1.00	49.71	AAAA C
ATOM	584	O	PHE	58	38.487	7.073	47.934	1.00	52.16	AAAA O
ATOM	585	N	ARG	59	36.471	6.118	47.944	1.00	44.26	AAAA N
ATOM	587	CA	ARG	59	36.753	5.281	46.815	1.00	40.80	AAAA C
ATOM	588	CB	ARG	59	36.911	5.993	45.427	1.00	23.79	AAAA C
ATOM	589	CG	ARG	59	35.869	7.020	45.121	1.00	46.53	AAAA C
ATOM	590	CD	ARG	59	35.921	7.562	43.706	1.00	37.64	AAAA C
ATOM	591	NE	ARG	59	35.822	6.422	42.806	1.00	49.23	AAAA N
ATOM	593	CZ	ARG	59	34.950	5.832	42.036	1.00	41.36	AAAA C
ATOM	594	NH1	ARG	59	33.702	6.277	41.931	1.00	47.00	AAAA N
ATOM	597	NH2	ARG	59	35.237	4.729	41.327	1.00	42.58	AAAA N
ATOM	600	C	ARG	59	38.037	4.494	47.049	1.00	42.25	AAAA C
ATOM	601	O	ARG	59	38.981	4.513	46.232	1.00	44.11	AAAA O
ATOM	602	N	VAL	60	38.061	3.625	48.023	1.00	40.84	AAAA N
ATOM	604	CA	VAL	60	39.101	2.743	48.341	1.00	39.14	AAAA C
ATOM	605	CB	VAL	60	39.624	3.066	49.751	1.00	40.12	AAAA C
ATOM	606	CG1	VAL	60	40.407	1.972	50.296	1.00	35.05	AAAA C
ATOM	607	CG2	VAL	60	40.425	4.352	49.893	1.00	28.86	AAAA C
ATOM	608	C	VAL	60	38.539	1.337	48.368	1.00	43.56	AAAA C
ATOM	609	O	VAL	60	37.535	1.224	49.072	1.00	47.66	AAAA O
ATOM	610	N	ALA	61	39.094	0.371	47.659	1.00	41.92	AAAA N
ATOM	612	CA	ALA	61	38.617	-0.992	47.749	1.00	42.05	AAAA C
ATOM	613	CB	ALA	61	38.302	-1.483	46.364	1.00	52.40	AAAA C
ATOM	614	C	ALA	61	39.613	-1.934	48.386	1.00	43.08	AAAA C
ATOM	615	O	ALA	61	40.757	-1.602	48.670	1.00	50.59	AAAA O
ATOM	616	N	GLY	62	39.200	-3.105	48.849	1.00	45.71	AAAA N
ATOM	618	CA	GLY	62	40.136	-4.079	49.385	1.00	45.39	AAAA C
ATOM	619	C	GLY	62	40.262	-3.902	50.872	1.00	48.04	AAAA C
ATOM	620	O	GLY	62	40.587	-4.835	51.604	1.00	52.34	AAAA O
ATOM	621	N	LEU	63	39.985	-2.734	51.383	1.00	46.90	AAAA N
ATOM	623	CA	LEU	63	40.003	-2.443	52.805	1.00	49.11	AAAA C

Figure 1A-5

ATOM	624	CB	LEU	63	40.274	-0.953	53.023	1.00	41.41	A
ATOM	625	CG	LEU	63	40.265	-0.423	54.443	1.00	53.41	A
ATOM	626	CD1	LEU	63	41.172	-1.164	55.416	1.00	48.27	A
ATOM	627	CD2	LEU	63	40.637	1.047	54.246	1.00	50.51	A
ATOM	628	C	LEU	63	38.643	-2.881	53.323	1.00	54.20	A
ATOM	629	O	LEU	63	37.587	-2.430	52.837	1.00	57.73	A
ATOM	630	N	GLU	64	38.658	-3.862	54.190	1.00	53.97	A
ATOM	632	CA	GLU	64	37.462	-4.448	54.749	1.00	56.96	A
ATOM	633	CB	GLU	64	37.689	-5.956	54.734	1.00	65.33	A
ATOM	634	CG	GLU	64	37.832	-6.484	53.293	1.00	75.14	A
ATOM	635	CD	GLU	64	37.104	-7.940	53.128	1.00	78.10	A
ATOM	636	OE1	GLU	64	37.424	-8.695	54.132	1.00	63.93	A
ATOM	637	OE2	GLU	64	37.036	-8.320	51.978	1.00	88.77	A
ATOM	638	C	GLU	64	37.096	-4.007	56.163	1.00	57.12	A
ATOM	639	O	GLU	64	35.986	-4.332	56.600	1.00	59.82	A
ATOM	640	N	SER	65	37.766	-3.042	56.761	1.00	50.64	A
ATOM	642	CA	SER	65	37.539	-2.523	58.060	1.00	47.19	A
ATOM	643	CB	SER	65	37.743	-3.596	59.139	1.00	49.24	A
ATOM	644	OG	SER	65	37.501	-2.971	60.429	1.00	50.90	A
ATOM	646	C	SER	65	38.516	-1.405	58.432	1.00	48.35	A
ATOM	647	O	SER	65	39.716	-1.692	58.374	1.00	52.75	A
ATOM	648	N	LEU	66	38.054	-0.289	58.984	1.00	41.03	A
ATOM	650	CA	LEU	66	38.956	0.758	59.405	1.00	41.94	A
ATOM	651	CB	LEU	66	38.247	2.085	59.498	1.00	25.25	A
ATOM	652	CG	LEU	66	37.283	2.476	58.402	1.00	34.49	A
ATOM	653	CD1	LEU	66	36.974	3.951	58.512	1.00	30.81	A
ATOM	654	CD2	LEU	66	37.767	2.200	56.994	1.00	34.34	A
ATOM	655	C	LEU	66	39.646	0.462	60.734	1.00	45.39	A
ATOM	656	O	LEU	66	40.762	0.947	60.927	1.00	41.05	A
ATOM	657	N	GLY	67	39.000	-0.346	61.593	1.00	45.21	A
ATOM	659	CA	GLY	67	39.773	-0.672	62.799	1.00	48.14	A
ATOM	660	C	GLY	67	40.998	-1.508	62.445	1.00	44.51	A
ATOM	661	O	GLY	67	41.855	-1.724	63.287	1.00	45.42	A
ATOM	662	N	ASP	68	41.013	-2.189	61.309	1.00	47.60	A
ATOM	664	CA	ASP	68	42.194	-2.834	60.738	1.00	50.99	A
ATOM	665	CB	ASP	68	42.012	-3.417	59.361	1.00	39.43	A
ATOM	666	CG	ASP	68	41.205	-4.678	59.311	1.00	45.82	A
ATOM	667	OD1	ASP	68	40.912	-5.341	60.320	1.00	44.69	A
ATOM	668	OD2	ASP	68	40.819	-5.065	58.187	1.00	47.23	A
ATOM	669	C	ASP	68	43.363	-1.837	60.596	1.00	45.89	A
ATOM	670	O	ASP	68	44.436	-2.269	60.903	1.00	44.84	A
ATOM	671	N	LEU	69	43.145	-0.609	60.247	1.00	42.49	A
ATOM	673	CA	LEU	69	44.175	0.352	60.048	1.00	45.80	A
ATOM	674	CB	LEU	69	43.920	1.393	58.945	1.00	45.25	A
ATOM	675	CG	LEU	69	43.902	0.882	57.494	1.00	54.25	A
ATOM	676	CD1	LEU	69	43.541	2.037	56.565	1.00	47.26	A
ATOM	677	CD2	LEU	69	45.211	0.200	57.113	1.00	50.76	A
ATOM	678	C	LEU	69	44.347	1.107	61.350	1.00	49.50	A
ATOM	679	O	LEU	69	45.470	1.210	61.851	1.00	54.51	A
ATOM	680	N	PHE	70	43.296	1.737	61.869	1.00	44.60	A
ATOM	682	CA	PHE	70	43.423	2.564	63.046	1.00	39.67	A
ATOM	683	CB	PHE	70	42.987	3.973	62.700	1.00	26.08	A
ATOM	684	CG	PHE	70	43.465	4.501	61.390	1.00	45.32	A
ATOM	685	CD1	PHE	70	42.532	4.748	60.384	1.00	47.41	A
ATOM	686	CD2	PHE	70	44.815	4.767	61.130	1.00	48.77	A
ATOM	687	CE1	PHE	70	42.945	5.263	59.159	1.00	56.16	A
ATOM	688	CE2	PHE	70	45.229	5.256	59.895	1.00	47.24	A
ATOM	689	CZ	PHE	70	44.293	5.506	58.896	1.00	49.54	A
ATOM	690	C	PHE	70	42.655	1.999	64.219	1.00	40.09	A
ATOM	691	O	PHE	70	41.874	2.734	64.838	1.00	35.74	A
ATOM	692	N	PRO	71	43.053	0.852	64.768	1.00	39.19	A
ATOM	693	CD	PRO	71	44.269	0.058	64.411	1.00	39.94	A
ATOM	694	CA	PRO	71	42.444	0.237	65.899	1.00	35.30	A
ATOM	695	CB	PRO	71	43.308	-0.983	66.246	1.00	38.03	A
ATOM	696	CG	PRO	71	44.669	-0.564	65.717	1.00	38.36	A
ATOM	697	C	PRO	71	42.453	1.089	67.126	1.00	33.72	A
ATOM	698	O	PRO	71	42.005	0.630	68.159	1.00	39.32	A
ATOM	699	N	ASN	72	43.058	2.220	67.231	1.00	36.55	A
ATOM	701	CA	ASN	72	43.204	3.032	68.401	1.00	32.60	A
ATOM	702	CB	ASN	72	44.637	2.916	68.962	1.00	36.89	A
ATOM	703	CG	ASN	72	44.735	1.638	69.761	1.00	47.03	A
ATOM	704	OD1	ASN	72	44.644	1.619	70.979	1.00	64.42	A
ATOM	705	ND2	ASN	72	44.880	0.475	69.169	1.00	63.17	A
ATOM	708	C	ASN	72	42.875	4.477	68.135	1.00	30.11	A
ATOM	709	O	ASN	72	43.099	5.201	69.104	1.00	36.53	A
ATOM	710	N	LEU	73	42.309	4.809	66.978	1.00	27.62	A
ATOM	712	CA	LEU	73	41.940	6.207	66.730	1.00	34.07	A
ATOM	713	CB	LEU	73	41.476	6.373	65.292	1.00	28.37	A
ATOM	714	CG	LEU	73	40.819	7.713	64.882	1.00	29.33	A
ATOM	715	CD1	LEU	73	41.918	8.721	64.963	1.00	31.86	A
ATOM	716	CD2	LEU	73	40.202	7.518	63.478	1.00	32.07	A
ATOM	717	C	LEU	73	40.929	6.569	67.817	1.00	32.14	A
ATOM	718	O	LEU	73	40.073	5.737	68.081	1.00	35.62	A
ATOM	719	N	THR	74	41.081	7.585	68.582	1.00	29.47	A
ATOM	721	CA	THR	74	40.150	7.826	69.683	1.00	34.80	A

Figure 1A-6

ATOM	722	CB	THR	74	41.028	7.744	70.952	1.00	46.09	AAAA C
ATOM	723	OG1	THR	74	41.729	6.485	70.880	1.00	46.30	AAAA O
ATOM	725	CG2	THR	74	40.262	7.831	72.253	1.00	39.45	AAAA C
ATOM	726	C	THR	74	39.424	9.155	69.602	1.00	35.48	AAAA C
ATOM	727	O	THR	74	38.270	9.322	70.077	1.00	35.32	AAAA O
ATOM	728	N	VAL	75	40.047	10.199	69.073	1.00	29.80	AAAA N
ATOM	730	CA	VAL	75	39.351	11.474	68.892	1.00	34.91	AAAA C
ATOM	731	CB	VAL	75	39.856	12.445	69.955	1.00	26.03	AAAA C
ATOM	732	CG1	VAL	75	39.173	13.801	69.934	1.00	24.51	AAAA C
ATOM	733	CG2	VAL	75	39.675	11.910	71.366	1.00	19.87	AAAA C
ATOM	734	C	VAL	75	39.613	12.045	67.494	1.00	37.57	AAAA C
ATOM	735	O	VAL	75	40.724	11.908	67.022	1.00	35.99	AAAA O
ATOM	736	N	ILE	76	38.600	12.555	66.796	1.00	35.91	AAAA N
ATOM	738	CA	ILE	76	38.696	13.340	65.592	1.00	31.48	AAAA C
ATOM	739	CB	ILE	76	37.931	12.769	64.492	1.00	29.60	AAAA C
ATOM	740	CG2	ILE	76	37.856	13.630	63.209	1.00	19.54	AAAA C
ATOM	741	CG1	ILE	76	38.222	11.314	64.277	1.00	28.52	AAAA C
ATOM	742	CD1	ILE	76	37.149	10.556	63.478	1.00	28.85	AAAA C
ATOM	743	C	ILE	76	38.157	14.718	66.000	1.00	33.84	AAAA C
ATOM	744	O	ILE	76	36.987	14.777	66.274	1.00	38.84	AAAA O
ATOM	745	N	ARG	77	38.906	15.733	66.230	1.00	30.32	AAAA N
ATOM	747	CA	ARG	77	38.605	16.901	67.021	1.00	30.82	AAAA C
ATOM	748	CB	ARG	77	39.961	17.475	67.461	1.00	26.62	AAAA C
ATOM	749	CG	ARG	77	39.993	18.836	68.058	1.00	52.42	AAAA C
ATOM	750	CD	ARG	77	41.290	18.957	68.908	1.00	49.10	AAAA C
ATOM	751	NE	ARG	77	41.411	17.817	69.773	1.00	39.23	AAAA N
ATOM	753	CZ	ARG	77	40.977	18.016	71.064	1.00	48.79	AAAA C
ATOM	754	NH1	ARG	77	40.440	19.104	71.610	1.00	30.34	AAAA N
ATOM	757	NH2	ARG	77	41.061	17.012	71.941	1.00	40.38	AAAA N
ATOM	760	C	ARG	77	37.643	17.733	66.225	1.00	31.75	AAAA C
ATOM	761	O	ARG	77	36.944	18.637	66.664	1.00	31.40	AAAA O
ATOM	762	N	GLY	78	37.688	17.661	64.884	1.00	32.87	AAAA N
ATOM	764	CA	GLY	78	36.982	18.409	63.950	1.00	16.23	AAAA C
ATOM	765	C	GLY	78	37.199	19.880	64.063	1.00	31.58	AAAA C
ATOM	766	O	GLY	78	36.363	20.775	63.674	1.00	34.03	AAAA O
ATOM	767	N	TRP	79	38.439	20.321	64.304	1.00	31.21	AAAA N
ATOM	769	CA	TRP	79	38.757	21.740	64.337	1.00	30.80	AAAA C
ATOM	770	CB	TRP	79	40.177	21.943	64.845	1.00	39.07	AAAA C
ATOM	771	CG	TRP	79	40.626	23.343	65.164	1.00	36.64	AAAA C
ATOM	772	CD2	TRP	79	41.691	24.001	64.433	1.00	28.52	AAAA C
ATOM	773	CE2	TRP	79	41.826	25.288	65.002	1.00	36.49	AAAA C
ATOM	774	CE3	TRP	79	42.473	23.625	63.370	1.00	37.96	AAAA C
ATOM	775	CD1	TRP	79	40.199	24.235	66.113	1.00	29.59	AAAA C
ATOM	776	NE1	TRP	79	40.917	25.413	66.054	1.00	27.67	AAAA N
ATOM	778	CZ2	TRP	79	42.770	26.213	64.543	1.00	31.83	AAAA C
ATOM	779	CZ3	TRP	79	43.389	24.548	62.876	1.00	46.24	AAAA C
ATOM	780	CH2	TRP	79	43.525	25.794	63.470	1.00	35.31	AAAA C
ATOM	781	C	TRP	79	38.606	22.418	62.986	1.00	28.75	AAAA C
ATOM	782	O	TRP	79	38.585	23.624	62.961	1.00	23.61	AAAA O
ATOM	783	N	LYS	80	38.659	21.684	61.895	1.00	31.84	AAAA N
ATOM	785	CA	LYS	80	38.305	22.153	60.573	1.00	32.78	AAAA C
ATOM	786	CB	LYS	80	39.453	22.498	59.689	1.00	41.17	AAAA C
ATOM	787	CG	LYS	80	39.838	23.911	59.470	1.00	34.68	AAAA C
ATOM	788	CD	LYS	80	41.025	24.350	60.306	1.00	44.77	AAAA C
ATOM	789	CE	LYS	80	41.276	25.811	59.898	1.00	50.41	AAAA C
ATOM	790	NZ	LYS	80	42.530	25.752	59.092	1.00	67.26	AAAA N
ATOM	791	C	LYS	80	37.585	20.960	59.917	1.00	34.52	AAAA C
ATOM	792	O	LYS	80	37.950	19.843	60.237	1.00	37.62	AAAA O
ATOM	793	N	LEU	81	36.477	21.267	59.207	1.00	31.77	AAAA N
ATOM	795	CA	LEU	81	35.742	20.157	58.600	1.00	31.02	AAAA C
ATOM	796	CB	LEU	81	34.290	20.315	59.092	1.00	31.20	AAAA C
ATOM	797	CG	LEU	81	34.115	20.319	60.632	1.00	36.97	AAAA C
ATOM	798	CD1	LEU	81	32.832	21.080	60.954	1.00	27.98	AAAA C
ATOM	799	CD2	LEU	81	34.089	18.955	61.297	1.00	28.77	AAAA C
ATOM	800	C	LEU	81	35.733	20.023	57.104	1.00	29.86	AAAA C
ATOM	801	O	LEU	81	36.082	20.947	56.368	1.00	29.34	AAAA O
ATOM	802	N	PHE	82	35.430	18.813	56.594	1.00	27.78	AAAA N
ATOM	804	CA	PHE	82	35.176	18.653	55.182	1.00	28.68	AAAA C
ATOM	805	CB	PHE	82	35.513	17.226	54.795	1.00	32.78	AAAA C
ATOM	806	CG	PHE	82	35.348	16.901	53.357	1.00	30.48	AAAA C
ATOM	807	CD1	PHE	82	36.378	17.130	52.447	1.00	32.86	AAAA C
ATOM	808	CD2	PHE	82	34.142	16.361	52.914	1.00	30.93	AAAA C
ATOM	809	CE1	PHE	82	36.217	16.769	51.104	1.00	43.27	AAAA C
ATOM	810	CE2	PHE	82	33.963	16.061	51.538	1.00	26.30	AAAA C
ATOM	811	CZ	PHE	82	35.005	16.238	50.672	1.00	37.73	AAAA C
ATOM	812	C	PHE	82	33.670	18.911	54.993	1.00	30.06	AAAA C
ATOM	813	O	PHE	82	32.830	18.045	55.278	1.00	27.36	AAAA O
ATOM	814	N	TYR	83	33.301	20.148	54.770	1.00	31.68	AAAA N
ATOM	815	CA	TYR	83	31.911	20.605	54.633	1.00	40.76	AAAA C
ATOM	816	C	TYR	83	31.043	19.977	55.726	1.00	44.00	AAAA C
ATOM	817	O	TYR	83	30.075	19.210	55.487	1.00	50.47	AAAA O
ATOM	818	CB	TYR	83	31.359	20.199	53.269	1.00	31.55	AAAA C
ATOM	819	CG	TYR	83	32.196	20.742	52.117	0.01	20.00	AAAA C
ATOM	820	CD1	TYR	83	33.254	19.982	51.609	0.01	20.00	AAAA C
ATOM	821	CD2	TYR	83	31.906	21.998	51.575	0.01	20.00	AAAA C

Figure 1A-7

ATOM	822	CE1	TYR	83	34.027	20.480	50.556	0.01	20.00	AAAA C
ATOM	823	CE2	TYR	83	32.679	22.496	50.521	0.01	20.00	AAAA C
ATOM	824	CZ	TYR	83	33.749	21.737	50.012	0.01	20.00	AAAA C
ATOM	825	OH	TYR	83	34.492	22.222	48.989	0.01	20.00	AAAA O
ATOM	826	N	ASN	84	31.043	20.461	56.924	1.00	40.91	AAAA N
ATOM	827	CA	ASN	84	30.250	20.057	58.056	1.00	36.54	AAAA C
ATOM	828	CB	ASN	84	28.763	20.046	57.700	1.00	47.84	AAAA C
ATOM	829	CG	ASN	84	28.274	21.164	56.797	1.00	60.75	AAAA C
ATOM	830	OD1	ASN	84	26.319	22.343	57.119	1.00	45.55	AAAA O
ATOM	831	ND2	ASN	84	27.839	20.876	55.552	1.00	65.98	AAAA N
ATOM	832	C	ASN	84	30.686	18.679	58.556	1.00	36.33	AAAA C
ATOM	833	O	ASN	84	30.137	18.206	59.589	1.00	38.24	AAAA O
ATOM	834	N	TYR	85	31.455	17.900	57.800	1.00	32.78	AAAA N
ATOM	836	CA	TYR	85	31.617	16.504	58.222	1.00	35.45	AAAA C
ATOM	837	CB	TYR	85	31.473	15.579	57.000	1.00	35.54	AAAA C
ATOM	838	CG	TYR	85	30.078	15.733	56.453	1.00	41.35	AAAA C
ATOM	839	CD1	TYR	85	29.968	16.291	55.199	1.00	38.22	AAAA C
ATOM	840	CE1	TYR	85	28.611	16.445	54.704	1.00	40.83	AAAA C
ATOM	841	CD2	TYR	85	28.954	15.371	57.200	1.00	47.42	AAAA C
ATOM	842	CE2	TYR	85	27.661	15.533	56.709	1.00	45.91	AAAA C
ATOM	843	CZ	TYR	85	27.497	16.072	55.445	1.00	46.06	AAAA C
ATOM	844	OH	TYR	85	26.258	16.315	54.886	1.00	46.05	AAAA O
ATOM	846	C	TYR	85	32.977	16.367	58.891	1.00	32.08	AAAA C
ATOM	847	O	TYR	85	33.943	16.977	58.405	1.00	37.44	AAAA O
ATOM	848	N	ALA	86	33.027	15.691	59.979	1.00	30.21	AAAA N
ATOM	850	CA	ALA	86	34.257	15.325	60.670	1.00	34.10	AAAA C
ATOM	851	CB	ALA	86	33.999	15.370	62.157	1.00	25.48	AAAA C
ATOM	852	C	ALA	86	34.729	13.962	60.216	1.00	32.67	AAAA C
ATOM	853	O	ALA	86	35.795	13.481	60.577	1.00	35.10	AAAA O
ATOM	854	N	LEU	87	33.832	13.173	59.597	1.00	28.56	AAAA N
ATOM	856	CA	LEU	87	34.188	11.805	59.323	1.00	29.26	AAAA C
ATOM	857	CB	LEU	87	33.798	10.860	60.471	1.00	13.64	AAAA C
ATOM	858	CG	LEU	87	33.801	9.363	60.188	1.00	25.77	AAAA C
ATOM	859	CD1	LEU	87	35.140	8.915	59.571	1.00	27.21	AAAA C
ATOM	860	CD2	LEU	87	33.637	8.432	61.393	1.00	23.52	AAAA C
ATOM	861	C	LEU	87	33.530	11.429	58.021	1.00	35.60	AAAA C
ATOM	862	O	LEU	87	32.320	11.421	58.001	1.00	38.97	AAAA O
ATOM	863	N	VAL	88	34.174	11.300	56.875	1.00	37.86	AAAA N
ATOM	865	CA	VAL	88	33.438	11.032	55.628	1.00	33.32	AAAA C
ATOM	866	CB	VAL	88	33.666	12.085	54.553	1.00	22.38	AAAA C
ATOM	867	CG1	VAL	88	32.974	11.675	53.261	1.00	19.24	AAAA C
ATOM	868	CG2	VAL	88	33.165	13.402	55.042	1.00	13.27	AAAA C
ATOM	869	C	VAL	88	33.898	9.684	55.114	1.00	31.79	AAAA C
ATOM	870	O	VAL	88	35.069	9.407	55.117	1.00	33.57	AAAA O
ATOM	871	N	ILE	89	33.078	8.728	54.822	1.00	31.08	AAAA N
ATOM	873	CA	ILE	89	33.361	7.433	54.280	1.00	30.45	AAAA C
ATOM	874	CB	ILE	89	32.541	6.384	55.296	1.00	30.17	AAAA C
ATOM	875	CG2	ILE	89	32.898	4.954	54.821	1.00	37.24	AAAA C
ATOM	876	CG1	ILE	89	33.893	6.420	56.500	1.00	24.92	AAAA C
ATOM	877	CD1	ILE	89	33.424	5.613	57.675	1.00	23.96	AAAA C
ATOM	878	C	ILE	89	32.509	7.206	53.027	1.00	40.64	AAAA C
ATOM	879	O	ILE	89	31.330	6.881	53.205	1.00	38.69	AAAA O
ATOM	880	N	PHE	90	33.082	7.464	51.845	1.00	41.45	AAAA N
ATOM	882	CA	PHE	90	32.346	7.371	50.591	1.00	37.67	AAAA C
ATOM	883	CB	PHE	90	32.347	8.776	50.110	1.00	32.17	AAAA C
ATOM	884	CG	PHE	90	31.591	9.081	48.865	1.00	39.77	AAAA C
ATOM	885	CD1	PHE	90	30.387	9.772	49.025	1.00	32.02	AAAA C
ATOM	886	CD2	PHE	90	32.052	8.721	47.620	1.00	29.28	AAAA C
ATOM	887	CE1	PHE	90	29.611	10.111	47.938	1.00	33.30	AAAA C
ATOM	888	CE2	PHE	90	31.290	9.086	46.534	1.00	43.09	AAAA C
ATOM	889	CZ	PHE	90	30.083	9.764	46.687	1.00	50.24	AAAA C
ATOM	890	C	PHE	90	32.856	6.384	49.557	1.00	40.72	AAAA C
ATOM	891	O	PHE	90	34.027	6.296	49.203	1.00	46.15	AAAA O
ATOM	892	N	GLU	91	32.024	5.519	49.001	1.00	39.16	AAAA N
ATOM	894	CA	GLU	91	32.248	4.601	47.954	1.00	42.45	AAAA C
ATOM	895	CB	GLU	91	32.479	5.231	46.583	1.00	38.08	AAAA C
ATOM	896	CG	GLU	91	31.136	5.865	46.250	1.00	58.86	AAAA C
ATOM	897	CD	GLU	91	30.855	5.776	44.757	1.00	63.55	AAAA C
ATOM	898	OE1	GLU	91	31.473	6.651	44.082	1.00	64.10	AAAA O
ATOM	899	OE2	GLU	91	30.058	4.813	44.573	1.00	63.64	AAAA O
ATOM	900	C	GLU	91	33.422	3.734	48.313	1.00	42.06	AAAA C
ATOM	901	O	GLU	91	34.298	3.411	47.587	1.00	44.71	AAAA O
ATOM	902	N	MET	92	33.352	3.209	49.482	1.00	46.52	AAAA N
ATOM	904	CA	MET	92	34.409	2.401	50.088	1.00	42.26	AAAA C
ATOM	905	CB	MET	92	34.299	2.659	51.584	1.00	38.37	AAAA C
ATOM	906	CG	MET	92	35.412	2.156	52.420	1.00	59.29	AAAA C
ATOM	907	SD	MET	92	36.802	3.306	52.401	1.00	57.67	AAAA S
ATOM	908	CE	MET	92	36.340	4.405	51.108	1.00	38.36	AAAA C
ATOM	909	C	MET	92	34.012	1.005	49.745	1.00	43.37	AAAA C
ATOM	910	O	MET	92	33.335	0.298	50.523	1.00	45.58	AAAA O
ATOM	911	N	THR	93	34.449	0.518	48.602	1.00	47.09	AAAA N
ATOM	913	CA	THR	93	34.175	-0.900	48.273	1.00	47.32	AAAA C
ATOM	911	CB	THR	93	34.666	-1.281	46.868	1.00	55.29	AAAA C
ATOM	915	OG1	THR	93	34.913	-0.486	45.892	1.00	57.81	AAAA O
ATOM	917	CG2	THR	93	34.332	-2.715	46.516	1.00	44.71	AAAA C

Figure 1A-8

ATOM	918	C	THR	93	34.885	-1.874	49.196	1.00	51.83	AAAA C
ATOM	919	O	THR	93	36.115	-1.777	49.361	1.00	57.91	AAAA O
ATOM	920	N	ASN	94	34.237	-2.983	49.493	1.00	49.85	AAAA N
ATOM	922	CA	ASN	94	34.747	-4.069	50.285	1.00	45.64	AAAA C
ATOM	923	CB	ASN	94	36.241	-4.315	50.001	1.00	59.01	AAAA C
ATOM	924	CG	ASN	94	36.494	-4.849	48.599	1.00	75.44	AAAA C
ATOM	925	OD1	ASN	94	36.847	-4.081	47.688	1.00	77.49	AAAA O
ATOM	926	ND2	ASN	94	36.308	-6.153	48.408	1.00	79.63	AAAA N
ATOM	929	C	ASN	94	34.522	-3.938	51.763	1.00	42.58	AAAA C
ATOM	930	O	ASN	94	34.752	-4.814	52.501	1.00	46.36	AAAA O
ATOM	931	N	LEU	95	34.308	-2.609	52.182	1.00	37.29	AAAA N
ATOM	933	CA	LEU	95	34.324	-2.277	53.621	1.00	39.96	AAAA C
ATOM	934	CB	LEU	95	34.185	-0.786	53.851	1.00	34.05	AAAA C
ATOM	935	CG	LEU	95	34.323	-0.296	55.269	1.00	35.91	AAAA C
ATOM	936	CD1	LEU	95	35.785	-0.537	55.598	1.00	35.48	AAAA C
ATOM	937	CD2	LEU	95	33.847	1.177	55.344	1.00	25.46	AAAA C
ATOM	938	C	LEU	95	33.163	-2.986	54.275	1.00	43.75	AAAA C
ATOM	939	O	LEU	95	32.048	-2.936	53.772	1.00	44.04	AAAA O
ATOM	940	N	LYS	96	33.451	-3.863	55.213	1.00	46.50	AAAA N
ATOM	942	CA	LYS	96	32.364	-4.648	55.779	1.00	42.76	AAAA C
ATOM	943	CB	LYS	96	32.801	-6.075	55.995	1.00	41.41	AAAA C
ATOM	944	CG	LYS	96	32.760	-6.976	54.788	1.00	49.78	AAAA C
ATOM	945	CD	LYS	96	32.984	-8.446	55.127	1.00	58.09	AAAA C
ATOM	946	CE	LYS	96	33.772	-9.160	54.027	1.00	73.43	AAAA C
ATOM	947	NZ	LYS	96	34.098	-10.556	54.489	1.00	79.13	AAAA N
ATOM	951	C	LYS	96	31.970	-4.055	57.122	1.00	45.29	AAAA C
ATOM	952	O	LYS	96	30.978	-4.502	57.691	1.00	46.23	AAAA O
ATOM	953	N	ASP	97	32.685	-3.071	57.645	1.00	45.15	AAAA N
ATOM	955	CA	ASP	97	32.299	-2.384	58.861	1.00	42.15	AAAA C
ATOM	956	CB	ASP	97	32.294	-3.292	60.059	1.00	45.39	AAAA C
ATOM	957	CG	ASP	97	33.662	-3.562	60.624	1.00	56.95	AAAA C
ATOM	958	OD1	ASP	97	34.579	-2.825	61.012	1.00	59.88	AAAA O
ATOM	959	OD2	ASP	97	33.931	-4.782	60.714	1.00	56.01	AAAA O
ATOM	960	C	ASP	97	33.209	-1.224	59.201	1.00	41.25	AAAA C
ATOM	961	O	ASP	97	34.160	-1.074	58.437	1.00	47.03	AAAA O
ATOM	962	N	ILE	98	32.822	-0.366	60.139	1.00	40.41	AAAA N
ATOM	964	CA	ILE	98	33.675	0.820	60.340	1.00	37.83	AAAA C
ATOM	965	CB	ILE	98	32.983	2.006	61.006	1.00	38.99	AAAA C
ATOM	966	CG2	ILE	98	34.007	3.133	61.207	1.00	38.95	AAAA C
ATOM	967	CG1	ILE	98	31.835	2.488	60.092	1.00	34.84	AAAA C
ATOM	968	CD1	ILE	98	31.629	3.958	59.948	1.00	39.29	AAAA C
ATOM	969	C	ILE	98	34.854	0.322	61.114	1.00	35.11	AAAA C
ATOM	970	O	ILE	98	35.970	0.669	60.941	1.00	43.05	AAAA O
ATOM	971	N	GLY	99	34.618	-0.393	62.192	1.00	34.22	AAAA N
ATOM	973	CA	GLY	99	35.477	-0.972	63.121	1.00	33.74	AAAA C
ATOM	974	C	GLY	99	36.279	-0.084	64.024	1.00	35.90	AAAA C
ATOM	975	O	GLY	99	37.023	-0.572	64.899	1.00	38.21	AAAA O
ATOM	976	N	LEU	100	36.190	1.221	63.913	1.00	33.35	AAAA N
ATOM	978	CA	LEU	100	36.763	2.215	64.771	1.00	31.65	AAAA C
ATOM	979	CB	LEU	100	36.496	3.636	64.294	1.00	29.87	AAAA C
ATOM	980	CG	LEU	100	36.943	3.980	62.835	1.00	32.13	AAAA C
ATOM	981	CD1	LEU	100	36.710	5.479	62.610	1.00	21.38	AAAA C
ATOM	982	CD2	LEU	100	38.412	3.599	62.644	1.00	37.66	AAAA C
ATOM	983	C	LEU	100	36.312	1.976	66.194	1.00	31.94	AAAA C
ATOM	984	O	LEU	100	35.950	2.863	66.979	1.00	31.95	AAAA O
ATOM	985	N	TYR	101	36.704	0.851	66.779	1.00	31.87	AAAA N
ATOM	987	CA	TYR	101	36.329	0.395	68.071	1.00	33.33	AAAA C
ATOM	988	CB	TYR	101	36.491	-1.104	68.264	1.00	41.03	AAAA C
ATOM	989	CG	TYR	101	37.919	-1.559	68.369	1.00	46.66	AAAA C
ATOM	990	CD1	TYR	101	38.571	-1.380	69.587	1.00	51.20	AAAA C
ATOM	991	CE1	TYR	101	39.901	-1.743	69.749	1.00	49.44	AAAA C
ATOM	992	CD2	TYR	101	38.615	-2.112	67.322	1.00	45.15	AAAA C
ATOM	993	CE2	TYR	101	39.927	-2.505	67.479	1.00	47.09	AAAA C
ATOM	994	CZ	TYR	101	40.549	-2.321	68.688	1.00	49.43	AAAA C
ATOM	995	OH	TYR	101	41.834	-2.662	68.997	1.00	55.82	AAAA O
ATOM	997	C	TYR	101	36.989	1.059	69.214	1.00	33.46	AAAA C
ATOM	998	O	TYR	101	36.630	0.813	70.375	1.00	43.00	AAAA O
ATOM	999	N	ASN	102	37.752	2.091	69.068	1.00	38.12	AAAA N
ATOM	1001	CA	ASN	102	38.093	2.979	70.223	1.00	30.79	AAAA C
ATOM	1002	CB	ASN	102	39.609	2.911	70.363	1.00	48.63	AAAA C
ATOM	1003	CG	ASN	102	40.112	1.804	71.268	1.00	54.01	AAAA C
ATOM	1004	OD1	ASN	102	39.738	1.864	72.454	1.00	47.22	AAAA O
ATOM	1005	ND2	ASN	102	40.864	0.845	70.767	1.00	43.09	AAAA N
ATOM	1008	C	ASN	102	37.673	4.385	69.947	1.00	33.82	AAAA C
ATOM	1009	O	ASN	102	38.047	5.364	70.592	1.00	39.84	AAAA O
ATOM	1010	N	LEU	103	36.845	4.640	68.982	1.00	35.28	AAAA N
ATOM	1012	CA	LEU	103	36.473	6.040	68.621	1.00	36.57	AAAA C
ATOM	1013	CB	LEU	103	35.948	6.140	67.213	1.00	34.77	AAAA C
ATOM	1014	CG	LEU	103	35.525	7.482	66.612	1.00	30.32	AAAA C
ATOM	1015	CD1	LEU	103	36.606	8.513	66.646	1.00	23.29	AAAA C
ATOM	1016	CD2	LEU	103	35.199	7.169	65.146	1.00	37.10	AAAA C
ATOM	1017	C	LEU	103	35.484	6.508	69.691	1.00	37.31	AAAA C
ATOM	1019	O	LEU	103	34.449	5.874	69.837	1.00	34.24	AAAA O
ATOM	1019	N	ARG	104	35.810	7.456	70.563	1.00	33.31	AAAA N
ATOM	1021	CA	ARG	104	34.920	7.041	71.605	1.00	29.64	AAAA C

Figure 1A-9

ATOM	1022	CB	ARG	104	35.568	7.657	73.019	1.00	38.17	AAAA C
ATOM	1023	CG	ARG	104	36.356	6.375	73.165	1.00	48.37	AAAA C
ATOM	1024	CD	ARG	104	35.425	5.183	73.248	1.00	50.71	AAAA C
ATOM	1025	NE	ARG	104	34.582	5.320	74.413	1.00	52.38	AAAA N
ATOM	1027	CZ	ARG	104	34.900	4.847	75.621	1.00	72.73	AAAA C
ATOM	1028	NH1	ARG	104	36.047	4.214	75.909	1.00	81.87	AAAA N
ATOM	1031	NH2	ARG	104	33.990	5.070	76.577	1.00	78.27	AAAA N
ATOM	1034	C	ARG	104	34.466	9.273	71.540	1.00	32.58	AAAA C
ATOM	1035	O	ARG	104	33.553	9.743	72.223	1.00	39.89	AAAA O
ATOM	1036	N	ASN	105	34.992	10.065	70.637	1.00	33.47	AAAA N
ATOM	1038	CA	ASN	105	34.549	11.450	70.590	1.00	30.97	AAAA C
ATOM	1044	C	ASN	105	34.907	12.149	69.310	1.00	31.00	AAAA C
ATOM	1045	O	ASN	105	36.086	12.067	69.050	1.00	37.79	AAAA O
ATOM	1039	CB	ASN	105	35.203	12.199	71.721	1.00	12.28	AAAA C
ATOM	1040	CG	ASN	105	34.786	13.568	71.756	1.00	24.93	AAAA C
ATOM	1041	OD1	ASN	105	35.125	14.549	71.127	1.00	38.14	AAAA O
ATOM	1042	ND2	ASN	105	33.828	13.985	72.649	1.00	35.96	AAAA N
ATOM	1016	N	ILE	106	33.969	12.669	68.576	1.00	31.90	AAAA N
ATOM	1048	CA	ILE	106	34.129	13.551	67.469	1.00	23.39	AAAA C
ATOM	1049	CB	ILE	106	33.239	13.185	66.307	1.00	16.54	AAAA C
ATOM	1050	CG2	ILE	106	33.132	14.408	65.374	1.00	20.38	AAAA C
ATOM	1051	CG1	ILE	106	33.928	12.034	65.558	1.00	18.30	AAAA C
ATOM	1052	CD1	ILE	106	33.055	11.293	64.643	1.00	25.48	AAAA C
ATOM	1053	C	ILE	106	33.803	14.909	68.009	1.00	27.40	AAAA C
ATOM	1054	O	ILE	106	32.628	15.106	68.243	1.00	32.86	AAAA O
ATOM	1055	N	THR	107	34.719	15.789	68.350	1.00	30.43	AAAA N
ATOM	1057	CA	THR	107	34.532	16.983	69.145	1.00	28.27	AAAA C
ATOM	1058	CB	THR	107	35.902	17.607	69.570	1.00	35.78	AAAA C
ATOM	1059	OG1	THR	107	36.819	16.503	69.738	1.00	40.26	AAAA O
ATOM	1061	CG2	THR	107	35.954	18.411	70.855	1.00	28.13	AAAA C
ATOM	1062	C	THR	107	33.728	17.950	69.332	1.00	27.95	AAAA C
ATOM	1063	O	THR	107	33.392	19.060	68.831	1.00	32.99	AAAA O
ATOM	1064	N	ARG	108	33.669	17.777	67.019	1.00	30.28	AAAA N
ATOM	1066	CA	ARG	108	33.046	18.809	66.180	1.00	31.25	AAAA C
ATOM	1067	CB	ARG	108	33.965	20.011	65.951	1.00	25.13	AAAA C
ATOM	1068	CG	ARG	108	33.105	21.174	65.543	1.00	30.68	AAAA C
ATOM	1069	CD	ARG	108	33.917	22.444	65.529	1.00	17.12	AAAA C
ATOM	1070	NE	ARG	108	33.511	23.376	64.451	1.00	33.40	AAAA N
ATOM	1072	CZ	ARG	108	34.045	23.608	63.266	1.00	46.41	AAAA C
ATOM	1073	NH1	ARG	108	35.162	22.929	62.868	1.00	40.30	AAAA N
ATOM	1076	NH2	ARG	108	33.454	24.543	62.494	1.00	39.82	AAAA N
ATOM	1079	C	ARG	108	32.701	18.328	64.784	1.00	31.50	AAAA C
ATOM	1080	O	ARG	108	33.379	17.381	64.430	1.00	32.67	AAAA O
ATOM	1081	N	GLY	109	31.567	18.809	64.284	1.00	32.60	AAAA N
ATOM	1083	CA	GLY	109	31.082	18.385	62.983	1.00	28.87	AAAA C
ATOM	1084	C	GLY	109	30.470	17.008	63.001	1.00	32.32	AAAA C
ATOM	1085	O	GLY	109	30.471	16.306	64.006	1.00	38.03	AAAA O
ATOM	1086	N	ALA	110	29.920	16.560	61.894	1.00	34.11	AAAA N
ATOM	1088	CA	ALA	110	29.086	15.371	61.833	1.00	36.77	AAAA C
ATOM	1089	CB	ALA	110	27.708	15.721	61.223	1.00	15.32	AAAA C
ATOM	1090	C	ALA	110	29.745	14.335	60.957	1.00	32.12	AAAA C
ATOM	1091	O	ALA	110	30.921	14.332	60.687	1.00	34.11	AAAA O
ATOM	1092	N	ILE	111	29.030	13.337	60.557	1.00	26.55	AAAA N
ATOM	1094	CA	ILE	111	29.569	12.273	59.771	1.00	32.90	AAAA C
ATOM	1095	CB	ILE	111	29.669	10.967	60.591	1.00	38.07	AAAA C
ATOM	1096	CG2	ILE	111	30.091	11.140	62.036	1.00	34.05	AAAA C
ATOM	1097	CG1	ILE	111	28.345	10.237	60.684	1.00	26.54	AAAA C
ATOM	1098	CD1	ILE	111	28.437	8.872	61.407	1.00	27.11	AAAA C
ATOM	1099	C	ILE	111	28.738	11.928	58.521	1.00	33.98	AAAA C
ATOM	1100	O	ILE	111	27.533	12.179	59.532	1.00	32.15	AAAA O
ATOM	1101	N	ARG	112	29.432	11.423	57.501	1.00	30.54	AAAA N
ATOM	1103	CA	ARG	112	28.773	11.107	56.247	1.00	27.48	AAAA C
ATOM	1104	CB	ARG	112	29.186	12.085	55.169	1.00	26.35	AAAA C
ATOM	1105	CG	ARG	112	28.548	11.653	53.816	1.00	25.83	AAAA C
ATOM	1106	CD	ARG	112	28.659	12.912	52.992	1.00	32.92	AAAA C
ATOM	1107	NE	ARG	112	27.950	12.726	51.770	1.00	50.34	AAAA N
ATOM	1109	CZ	ARG	112	27.778	13.503	50.720	1.00	47.61	AAAA C
ATOM	1110	NH1	ARG	112	28.334	14.695	50.696	1.00	44.92	AAAA N
ATOM	1113	NH2	ARG	112	27.012	12.925	49.789	1.00	46.00	AAAA N
ATOM	1116	C	ARG	112	29.200	9.738	55.791	1.00	29.74	AAAA C
ATOM	1117	O	ARG	112	30.343	9.611	55.406	1.00	36.52	AAAA O
ATOM	1118	N	ILE	113	28.326	8.754	55.886	1.00	33.99	AAAA N
ATOM	1120	CA	ILE	113	28.612	7.376	55.555	1.00	36.26	AAAA C
ATOM	1121	CB	ILE	113	28.457	6.461	56.760	1.00	33.27	AAAA C
ATOM	1122	CG2	ILE	113	28.850	5.021	56.449	1.00	15.85	AAAA C
ATOM	1123	CG1	ILE	113	29.374	7.012	57.874	1.00	31.92	AAAA C
ATOM	1124	CD1	ILE	113	29.324	6.250	59.176	1.00	42.34	AAAA C
ATOM	1125	C	ILE	113	27.729	6.959	54.398	1.00	39.26	AAAA C
ATOM	1126	O	ILE	113	26.637	6.482	54.664	1.00	50.72	AAAA O
ATOM	1127	N	GLU	114	28.175	7.199	53.190	1.00	35.86	AAAA N
ATOM	1129	CA	GLU	114	27.491	7.103	51.935	1.00	38.76	AAAA C
ATOM	1130	CB	GLU	114	27.471	8.443	51.216	1.00	25.58	AAAA C
ATOM	1131	CG	GLU	114	26.567	8.402	49.969	1.00	27.97	AAAA C
ATOM	1132	CD	GLU	114	26.349	9.840	49.570	1.00	36.85	AAAA C
ATOM	1133	OE1	GLU	114	26.763	10.662	50.414	1.00	45.57	AAAA O

Figure 1A-10

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ATOM  1134  OE2 GLU 114      25.797  10.106  49.488  1.00 35.53      AAAA O
ATOM  1135  C   GLU 114      28.039   6.072  50.944  1.00 44.17      AAAA C
ATOM  1136  O   GLU 114      29.120   5.538  51.090  1.00 49.97      AAAA O
ATOM  1137  N   LYS 115      27.191   5.556  50.096  1.00 40.55      AAAA N
ATOM  1138  CA  LYS 115      27.219   4.440  49.242  1.00 41.16      AAAA C
ATOM  1139  CB  LYS 115      27.275   4.764  47.719  1.00 23.62      AAAA C
ATOM  1140  CG  LYS 115      27.019   6.194  47.411  1.00 18.39      AAAA C
ATOM  1141  CD  LYS 115      26.537   6.355  45.982  1.00 24.74      AAAA C
ATOM  1142  CE  LYS 115      26.751   7.804  45.622  1.00 41.86      AAAA C
ATOM  1143  NZ  LYS 115      27.165   8.045  44.196  1.00 60.91      AAAA N
ATOM  1144  C   LYS 115      28.287   3.421  49.611  1.00 42.39      AAAA C
ATOM  1145  O   LYS 115      29.102   3.103  48.748  1.00 46.68      AAAA O
ATOM  1146  N   ASN 116      28.137   2.677  50.665  1.00 40.99      AAAA N
ATOM  1147  CA  ASN 116      29.022   1.570  50.976  1.00 37.33      AAAA C
ATOM  1148  CB  ASN 116      29.534   1.868  52.381  1.00 46.12      AAAA C
ATOM  1149  CG  ASN 116      30.372   3.153  52.315  1.00 49.92      AAAA C
ATOM  1150  OD1 ASN 116      31.337   3.016  51.583  1.00 38.59      AAAA O
ATOM  1151  ND2 ASN 116      29.927   4.174  53.056  1.00 37.35      AAAA N
ATOM  1152  C   ASN 116      28.275   0.277  50.974  1.00 42.52      AAAA C
ATOM  1153  O   ASN 116      28.067  -0.361  52.033  1.00 48.24      AAAA O
ATOM  1154  N   ALA 117      27.989  -0.188  49.772  1.00 40.94      AAAA N
ATOM  1155  CA  ALA 117      27.195  -1.376  49.542  1.00 43.35      AAAA C
ATOM  1156  CB  ALA 117      27.494  -1.884  48.156  1.00 47.63      AAAA C
ATOM  1157  C   ALA 117      27.294  -2.504  50.529  1.00 46.55      AAAA C
ATOM  1158  O   ALA 117      26.211  -2.998  50.890  1.00 51.24      AAAA O
ATOM  1159  N   ASP 118      28.484  -2.823  51.005  1.00 47.43      AAAA N
ATOM  1160  CA  ASP 118      28.559  -3.980  51.920  1.00 45.74      AAAA C
ATOM  1161  CB  ASP 118      29.659  -4.945  51.477  1.00 55.39      AAAA C
ATOM  1162  CG  ASP 118      29.684  -5.119  49.958  1.00 59.40      AAAA C
ATOM  1163  OD1 ASP 118      28.870  -5.976  49.608  1.00 64.40      AAAA O
ATOM  1164  OD2 ASP 118      30.448  -4.447  49.207  1.00 66.73      AAAA O
ATOM  1165  C   ASP 118      28.818  -3.586  53.353  1.00 37.29      AAAA C
ATOM  1166  O   ASP 118      29.127  -4.536  54.026  1.00 42.89      AAAA O
ATOM  1167  N   LEU 119      28.670  -2.327  53.685  1.00 36.46      AAAA N
ATOM  1168  CA  LEU 119      28.986  -1.885  55.047  1.00 40.58      AAAA C
ATOM  1169  CB  LEU 119      29.159  -0.389  55.145  1.00 34.31      AAAA C
ATOM  1170  CG  LEU 119      29.640   0.331  56.378  1.00 36.58      AAAA C
ATOM  1171  CD1 LEU 119      30.950  -0.101  56.948  1.00 35.77      AAAA C
ATOM  1172  CD2 LEU 119      29.791   1.830  56.104  1.00 29.68      AAAA C
ATOM  1173  C   LEU 119      27.937  -2.376  56.007  1.00 43.67      AAAA C
ATOM  1174  O   LEU 119      26.748  -2.248  55.743  1.00 45.32      AAAA O
ATOM  1175  N   CYS 120      28.361  -2.967  57.110  1.00 43.53      AAAA N
ATOM  1176  CA  CYS 120      27.378  -3.407  58.089  1.00 38.93      AAAA C
ATOM  1177  C   CYS 120      27.881  -2.921  59.426  1.00 41.91      AAAA C
ATOM  1178  O   CYS 120      28.660  -1.960  59.446  1.00 43.66      AAAA O
ATOM  1179  CB  CYS 120      27.285  -4.907  58.100  1.00 37.59      AAAA C
ATOM  1180  SG  CYS 120      26.568  -5.622  56.639  1.00 58.32      AAAA S
ATOM  1181  N   TYR 121      27.328  -3.456  60.509  1.00 38.05      AAAA N
ATOM  1182  CA  TYR 121      27.795  -3.010  61.927  1.00 39.68      AAAA C
ATOM  1183  CB  TYR 121      29.189  -3.572  62.130  1.00 34.61      AAAA C
ATOM  1184  CG  TYR 121      28.950  -5.032  62.519  1.00 36.52      AAAA C
ATOM  1185  CD1 TYR 121      29.087  -6.045  61.582  1.00 33.58      AAAA C
ATOM  1186  CE1 TYR 121      28.852  -7.350  61.980  1.00 41.21      AAAA C
ATOM  1187  CD2 TYR 121      28.560  -5.337  63.817  1.00 36.31      AAAA C
ATOM  1188  CE2 TYR 121      28.257  -6.630  64.201  1.00 39.48      AAAA C
ATOM  1189  CZ  TYR 121      28.432  -7.641  63.270  1.00 46.03      AAAA C
ATOM  1190  OH  TYR 121      28.161  -8.924  63.730  1.00 49.20      AAAA O
ATOM  1191  C   TYR 121      27.674  -1.523  61.789  1.00 38.83      AAAA C
ATOM  1192  O   TYR 121      28.445  -0.778  62.369  1.00 43.22      AAAA O
ATOM  1193  N   LEU 122      26.587  -1.045  61.180  1.00 39.58      AAAA N
ATOM  1194  CA  LEU 122      26.361   0.405  61.090  1.00 44.82      AAAA C
ATOM  1195  CB  LEU 122      25.990   0.715  59.634  1.00 46.48      AAAA C
ATOM  1196  CG  LEU 122      26.497   2.014  59.108  1.00 44.44      AAAA C
ATOM  1197  CD1 LEU 122      25.778   2.448  57.859  1.00 32.19      AAAA C
ATOM  1198  CD2 LEU 122      26.136   3.057  60.170  1.00 47.76      AAAA C
ATOM  1199  C   LEU 122      25.212   0.910  61.935  1.00 44.85      AAAA C
ATOM  1200  O   LEU 122      25.269   1.759  62.839  1.00 47.66      AAAA O
ATOM  1201  N   SER 123      24.104   0.137  61.843  1.00 40.12      AAAA N
ATOM  1202  CA  SER 123      22.949   0.435  62.703  1.00 33.88      AAAA C
ATOM  1203  CB  SER 123      21.754  -0.330  62.239  1.00 19.26      AAAA C
ATOM  1204  OG  SER 123      21.964  -1.762  62.402  1.00 34.35      AAAA O
ATOM  1205  C   SER 123      23.165   0.060  64.159  1.00 37.43      AAAA C
ATOM  1206  O   SER 123      22.326   0.280  65.025  1.00 35.33      AAAA O
ATOM  1207  N   THR 124      24.242  -0.698  64.432  1.00 39.03      AAAA N
ATOM  1208  CA  THR 124      24.554  -1.165  65.753  1.00 37.78      AAAA C
ATOM  1209  CB  THR 124      25.368  -2.461  65.719  1.00 42.39      AAAA C
ATOM  1210  OG1 THR 124      26.502  -2.020  64.924  1.00 47.70      AAAA O
ATOM  1211  CG2 THR 124      24.677  -3.622  65.006  1.00 40.93      AAAA C
ATOM  1212  C   THR 124      25.522  -0.206  66.445  1.00 39.29      AAAA C
ATOM  1213  O   THR 124      25.948  -0.642  67.499  1.00 41.41      AAAA O
ATOM  1214  N   VAL 125      25.737   1.001  65.985  1.00 37.80      AAAA N
ATOM  1215  CA  VAL 125      26.594   1.964  66.661  1.00 41.06      AAAA C
ATOM  1216  CB  VAL 125      27.683   2.542  65.714  1.00 39.50      AAAA C
ATOM  1217  CG1 VAL 125      28.570   3.599  66.352  1.00 28.36      AAAA C
ATOM  1218  CG2 VAL 125      28.693   1.565  65.110  1.00 33.07      AAAA C
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Figure 1A-11

ATOM	1238	C	VAL	125	25.750	3.127	67.173	1.00	41.17	AAAA C
ATOM	1239	O	VAL	125	24.941	3.750	66.531	1.00	41.22	AAAA O
ATOM	1240	N	ASP	126	26.072	3.636	68.367	1.00	44.54	AAAA N
ATOM	1242	CA	ASP	126	25.310	4.734	68.967	1.00	37.44	AAAA C
ATOM	1243	CB	ASP	126	24.862	4.335	70.342	1.00	34.73	AAAA C
ATOM	1244	CG	ASP	126	23.879	5.303	70.983	1.00	45.53	AAAA C
ATOM	1245	OD1	ASP	126	23.696	6.520	70.685	1.00	27.71	AAAA O
ATOM	1246	OD2	ASP	126	23.220	4.865	71.964	1.00	52.32	AAAA O
ATOM	1247	C	ASP	126	26.146	5.985	68.872	1.00	40.83	AAAA C
ATOM	1248	O	ASP	126	26.740	6.400	69.888	1.00	42.78	AAAA O
ATOM	1249	N	TRP	127	26.029	6.649	67.704	1.00	35.42	AAAA N
ATOM	1251	CA	TRP	127	26.777	7.856	67.410	1.00	33.02	AAAA C
ATOM	1252	CB	TRP	127	26.568	9.296	65.930	1.00	24.89	AAAA C
ATOM	1253	CG	TRP	127	27.195	7.372	64.907	1.00	34.36	AAAA C
ATOM	1254	CD2	TRP	127	28.587	7.208	64.518	1.00	28.60	AAAA C
ATOM	1255	CE2	TRP	127	28.631	6.186	63.579	1.00	29.06	AAAA C
ATOM	1256	CE3	TRP	127	29.778	7.845	64.873	1.00	35.51	AAAA C
ATOM	1257	CD1	TRP	127	26.465	6.450	64.188	1.00	18.67	AAAA C
ATOM	1258	NE1	TRP	127	27.311	5.712	63.394	1.00	42.87	AAAA N
ATOM	1260	CZ2	TRP	127	29.792	5.783	62.954	1.00	32.53	AAAA C
ATOM	1261	CZ3	TRP	127	30.972	7.445	64.285	1.00	31.51	AAAA C
ATOM	1262	CH2	TRP	127	30.937	6.405	63.336	1.00	37.86	AAAA C
ATOM	1263	C	TRP	127	26.558	9.010	68.367	1.00	36.09	AAAA C
ATOM	1264	O	TRP	127	27.382	9.977	68.497	1.00	40.87	AAAA O
ATOM	1265	N	SER	128	25.493	8.931	69.171	1.00	31.24	AAAA N
ATOM	1267	CA	SER	128	25.201	10.041	70.081	1.00	34.04	AAAA C
ATOM	1268	CB	SER	128	23.757	10.042	70.603	1.00	36.87	AAAA C
ATOM	1269	OG	SER	128	23.433	8.917	71.424	1.00	28.96	AAAA O
ATOM	1271	C	SER	128	26.133	9.975	71.292	1.00	32.39	AAAA C
ATOM	1272	O	SER	128	26.212	10.957	72.134	1.00	30.91	AAAA O
ATOM	1273	N	LEU	129	26.662	8.792	71.549	1.00	27.18	AAAA N
ATOM	1275	CA	LEU	129	27.701	8.607	72.526	1.00	36.73	AAAA C
ATOM	1276	CB	LEU	129	27.920	7.132	72.741	1.00	32.53	AAAA C
ATOM	1277	CG	LEU	129	26.795	6.324	73.371	1.00	39.28	AAAA C
ATOM	1278	CD1	LEU	129	27.292	5.024	73.975	1.00	32.54	AAAA C
ATOM	1279	CD2	LEU	129	26.237	7.117	74.560	1.00	32.12	AAAA C
ATOM	1280	C	LEU	129	29.054	9.226	72.113	1.00	38.04	AAAA C
ATOM	1281	O	LEU	129	29.645	10.001	72.874	1.00	34.50	AAAA O
ATOM	1282	N	ILE	130	29.316	9.217	70.807	1.00	42.09	AAAA N
ATOM	1284	CA	ILE	130	30.480	9.743	70.144	1.00	41.35	AAAA C
ATOM	1285	CB	ILE	130	30.793	8.886	68.901	1.00	41.73	AAAA C
ATOM	1286	CG2	ILE	130	31.992	9.434	68.176	1.00	31.95	AAAA C
ATOM	1287	CG1	ILE	130	30.969	7.413	69.347	1.00	26.64	AAAA C
ATOM	1288	CD1	ILE	130	31.053	6.457	68.165	1.00	42.65	AAAA C
ATOM	1289	C	ILE	130	30.305	11.178	69.679	1.00	46.48	AAAA C
ATOM	1290	O	ILE	130	31.224	11.985	69.966	1.00	38.46	AAAA O
ATOM	1291	N	LEU	131	29.089	11.495	69.193	1.00	45.14	AAAA N
ATOM	1293	CA	LEU	131	28.895	12.865	68.651	1.00	41.45	AAAA C
ATOM	1294	CB	LEU	131	28.499	12.816	67.259	1.00	46.81	AAAA C
ATOM	1295	CG	LEU	131	28.823	13.805	66.878	1.00	36.79	AAAA C
ATOM	1296	CD1	LEU	131	29.128	11.405	66.324	1.00	30.15	AAAA C
ATOM	1297	CD2	LEU	131	27.625	13.581	66.334	1.00	19.92	AAAA C
ATOM	1298	C	LEU	131	27.661	13.525	69.285	1.00	39.28	AAAA C
ATOM	1299	O	LEU	131	26.599	12.867	69.311	1.00	37.75	AAAA O
ATOM	1300	N	ASP	132	27.742	14.811	69.518	1.00	33.73	AAAA N
ATOM	1302	CA	ASP	132	26.610	15.542	70.003	1.00	38.20	AAAA C
ATOM	1303	CB	ASP	132	27.017	16.944	70.381	1.00	43.17	AAAA C
ATOM	1304	CG	ASP	132	27.349	17.137	71.834	1.00	43.29	AAAA C
ATOM	1305	OD1	ASP	132	27.536	16.122	72.521	1.00	47.12	AAAA O
ATOM	1306	OD2	ASP	132	27.413	18.331	72.208	1.00	60.56	AAAA O
ATOM	1307	C	ASP	132	25.520	15.659	68.946	1.00	43.46	AAAA C
ATOM	1308	O	ASP	132	24.481	15.032	68.939	1.00	49.32	AAAA O
ATOM	1309	N	ALA	133	25.754	16.398	67.900	1.00	45.03	AAAA N
ATOM	1311	CA	ALA	133	24.947	16.776	66.773	1.00	38.62	AAAA C
ATOM	1312	CB	ALA	133	25.628	17.987	66.092	1.00	33.82	AAAA C
ATOM	1313	C	ALA	133	24.694	15.669	65.775	1.00	33.35	AAAA C
ATOM	1314	O	ALA	133	24.777	15.791	64.517	1.00	33.71	AAAA O
ATOM	1315	N	VAL	134	24.116	14.565	66.219	1.00	27.88	AAAA N
ATOM	1317	CA	VAL	134	23.813	13.440	65.377	1.00	29.90	AAAA C
ATOM	1318	CB	VAL	134	23.202	12.241	66.120	1.00	40.63	AAAA C
ATOM	1319	CG1	VAL	134	24.265	11.441	66.855	1.00	35.20	AAAA C
ATOM	1320	CG2	VAL	134	22.095	12.701	67.068	1.00	30.84	AAAA C
ATOM	1321	C	VAL	134	22.735	13.732	64.353	1.00	36.98	AAAA C
ATOM	1322	O	VAL	134	22.616	13.106	63.292	1.00	32.95	AAAA O
ATOM	1323	N	SER	135	21.920	14.777	64.626	1.00	39.65	AAAA N
ATOM	1325	CA	SER	135	20.886	15.139	63.692	1.00	43.12	AAAA C
ATOM	1326	CB	SER	135	20.093	16.277	64.305	1.00	45.19	AAAA C
ATOM	1327	OG	SER	135	20.882	17.369	64.684	1.00	39.25	AAAA O
ATOM	1329	C	SER	135	21.396	15.516	62.309	1.00	41.15	AAAA C
ATOM	1330	O	SER	135	20.615	15.642	61.359	1.00	43.81	AAAA O
ATOM	1331	N	ASN	136	22.615	15.911	62.165	1.00	41.11	AAAA N
ATOM	1333	CA	ASN	136	23.298	16.353	60.978	1.00	37.21	AAAA C
ATOM	1334	CB	ASN	136	24.324	17.372	61.399	1.00	39.66	AAAA C
ATOM	1335	CG	ASN	136	23.724	18.709	61.717	1.00	36.59	AAAA C
ATOM	1336	OD1	ASN	136	22.695	19.079	61.149	1.00	50.81	AAAA O

Figure 1A-12

ATOM	1337	HD2	ASN	136	24.579	19.441	62.585	1.00	47.85	AAAA H
ATOM	1340	C	ASN	136	21.931	15.230	60.259	1.00	35.31	AAAA C
ATOM	1341	O	ASN	136	24.535	15.484	59.194	1.00	38.70	AAAA O
ATOM	1342	H	ASN	137	24.057	14.035	60.793	1.00	29.11	AAAA H
ATOM	1344	CA	ASN	137	24.721	12.959	60.126	1.00	32.98	AAAA C
ATOM	1345	CB	ASN	137	24.737	11.703	61.033	1.00	24.45	AAAA C
ATOM	1346	CG	ASN	137	25.631	11.965	62.217	1.00	26.63	AAAA C
ATOM	1347	OD1	ASN	137	26.070	13.101	62.369	1.00	30.22	AAAA O
ATOM	1348	ND2	ASN	137	25.830	10.923	63.000	1.00	19.90	AAAA N
ATOM	1351	C	ASN	137	23.950	12.749	58.817	1.00	35.89	AAAA C
ATOM	1352	O	ASN	137	22.716	12.755	58.855	1.00	38.57	AAAA O
ATOM	1353	N	TYR	138	24.592	12.251	57.785	1.00	32.86	AAAA N
ATOM	1355	CA	TYR	138	24.093	11.983	56.489	1.00	30.25	AAAA C
ATOM	1356	CB	TYR	138	24.682	12.861	55.421	1.00	27.10	AAAA C
ATOM	1357	CG	TYR	138	24.918	12.741	54.079	1.00	37.89	AAAA C
ATOM	1358	CD1	TYR	138	23.983	13.671	53.648	1.00	39.22	AAAA C
ATOM	1359	CE1	TYR	138	22.510	13.579	52.392	1.00	37.65	AAAA C
ATOM	1360	CD2	TYR	138	24.357	11.717	53.195	1.00	44.28	AAAA C
ATOM	1361	CE2	TYR	138	23.901	11.615	51.951	1.00	41.97	AAAA C
ATOM	1362	CZ	TYR	138	22.868	12.562	51.544	1.00	39.42	AAAA C
ATOM	1363	OH	TYR	138	22.296	12.504	50.318	1.00	45.48	AAAA O
ATOM	1365	C	TYR	138	24.373	10.579	56.051	1.00	31.33	AAAA C
ATOM	1366	O	TYR	138	25.505	10.317	55.797	1.00	37.76	AAAA O
ATOM	1367	N	ILE	139	23.461	9.660	56.116	1.00	35.40	AAAA N
ATOM	1369	CA	ILE	139	23.637	8.249	55.935	1.00	34.04	AAAA C
ATOM	1370	CB	ILE	139	23.234	7.450	57.171	1.00	28.66	AAAA C
ATOM	1371	CG2	ILE	139	23.640	5.984	57.093	1.00	21.99	AAAA C
ATOM	1372	CG1	ILE	139	23.711	8.057	58.469	1.00	42.81	AAAA C
ATOM	1373	CD1	ILE	139	24.455	7.100	59.389	1.00	52.23	AAAA C
ATOM	1374	C	ILE	139	22.729	7.708	54.830	1.00	35.73	AAAA C
ATOM	1375	O	ILE	139	21.538	7.890	54.757	1.00	42.61	AAAA O
ATOM	1376	N	VAL	140	23.286	6.997	53.873	1.00	35.29	AAAA N
ATOM	1378	CA	VAL	140	22.533	6.481	52.755	1.00	32.39	AAAA C
ATOM	1379	CB	VAL	140	21.967	7.627	51.881	1.00	36.05	AAAA C
ATOM	1380	CG1	VAL	140	22.800	8.375	50.881	1.00	25.88	AAAA C
ATOM	1381	CG2	VAL	140	20.807	7.034	51.047	1.00	34.96	AAAA C
ATOM	1382	C	VAL	140	23.422	5.670	51.874	1.00	41.96	AAAA C
ATOM	1383	O	VAL	140	24.537	6.172	51.637	1.00	44.03	AAAA O
ATOM	1384	N	GLY	141	22.899	4.562	51.402	1.00	42.66	AAAA N
ATOM	1386	CA	GLY	141	23.381	3.805	50.278	1.00	30.94	AAAA C
ATOM	1387	C	GLY	141	24.265	2.696	50.835	1.00	38.98	AAAA C
ATOM	1388	O	GLY	141	25.132	2.003	50.176	1.00	35.87	AAAA O
ATOM	1389	N	ASN	142	23.985	2.418	52.116	1.00	38.92	AAAA N
ATOM	1391	CA	ASN	142	24.858	1.390	52.746	1.00	44.32	AAAA C
ATOM	1392	CB	ASN	142	25.257	1.774	54.187	1.00	43.12	AAAA C
ATOM	1393	CG	ASN	142	26.131	3.022	54.152	1.00	42.00	AAAA C
ATOM	1394	OD1	ASN	142	26.904	3.077	53.269	1.00	40.47	AAAA O
ATOM	1395	ND2	ASN	142	25.945	4.022	55.019	1.00	41.98	AAAA N
ATOM	1398	C	ASN	142	24.153	0.066	52.687	1.00	45.84	AAAA C
ATOM	1399	O	ASN	142	23.113	-0.015	52.055	1.00	49.65	AAAA O
ATOM	1400	N	LYS	143	24.574	-0.990	53.272	1.00	45.23	AAAA N
ATOM	1402	CA	LYS	143	24.073	-2.299	53.195	1.00	49.14	AAAA C
ATOM	1403	CB	LYS	143	25.166	-3.328	53.433	1.00	41.49	AAAA C
ATOM	1404	CG	LYS	143	24.750	-4.686	53.832	1.00	44.96	AAAA C
ATOM	1405	CD	LYS	143	25.512	-5.743	53.100	1.00	48.66	AAAA C
ATOM	1406	CE	LYS	143	25.043	-7.131	53.558	1.00	38.35	AAAA C
ATOM	1407	NZ	LYS	143	26.080	-8.093	53.040	1.00	53.83	AAAA N
ATOM	1411	C	LYS	143	22.902	-2.431	54.169	1.00	52.85	AAAA C
ATOM	1412	O	LYS	143	22.960	-2.099	55.360	1.00	55.21	AAAA O
ATOM	1413	N	PRO	144	21.806	-3.047	53.731	1.00	52.39	AAAA N
ATOM	1414	CD	PRO	144	21.617	-3.469	52.315	1.00	52.58	AAAA C
ATOM	1415	CA	PRO	144	20.559	-3.118	54.489	1.00	48.30	AAAA C
ATOM	1416	CB	PRO	144	19.549	-3.602	53.455	1.00	51.41	AAAA C
ATOM	1417	CG	PRO	144	20.134	-3.299	52.099	1.00	50.41	AAAA C
ATOM	1418	C	PRO	144	20.621	-4.050	55.659	1.00	44.65	AAAA C
ATOM	1419	O	PRO	144	20.904	-5.236	55.501	1.00	36.84	AAAA O
ATOM	1420	N	PRO	145	20.318	-3.533	56.859	1.00	45.12	AAAA N
ATOM	1421	CD	PRO	145	20.123	-2.054	57.094	1.00	38.17	AAAA C
ATOM	1422	CA	PRO	145	20.448	-4.233	58.128	1.00	40.19	AAAA C
ATOM	1423	CB	PRO	145	19.704	-3.298	59.099	1.00	37.08	AAAA C
ATOM	1424	CG	PRO	145	20.040	-1.910	58.602	1.00	33.65	AAAA C
ATOM	1425	C	PRO	145	19.993	-5.655	58.155	1.00	47.17	AAAA C
ATOM	1426	O	PRO	145	20.556	-6.592	58.768	1.00	48.05	AAAA O
ATOM	1427	N	LYS	146	18.979	-5.924	57.489	1.00	53.72	AAAA N
ATOM	1429	CA	LYS	146	18.268	-7.229	57.295	1.00	56.94	AAAA C
ATOM	1430	CB	LYS	146	16.994	-7.050	56.647	1.00	65.44	AAAA C
ATOM	1431	CG	LYS	146	16.220	-8.232	55.982	1.00	64.32	AAAA C
ATOM	1432	CD	LYS	146	14.797	-8.422	56.451	0.01	62.75	AAAA C
ATOM	1433	CE	LYS	146	14.194	-9.717	55.934	0.01	62.14	AAAA C
ATOM	1434	NZ	LYS	146	12.720	-9.610	55.753	0.01	61.38	AAAA N
ATOM	1436	C	LYS	146	19.138	-8.138	56.446	1.00	61.40	AAAA C
ATOM	1439	O	LYS	146	19.23?	-9.346	56.732	1.00	66.22	AAAA O
ATOM	1440	N	GLU	147	19.779	-7.649	55.389	1.00	62.92	AAAA N
ATOM	1442	CA	GLU	147	20.927	-8.446	54.742	1.00	67.00	AAAA C
ATOM	1443	CB	GLU	147	21.101	-8.070	53.294	1.00	62.32	AAAA C

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ATOM	1444	OE1	GLU	147	19.967	-7.579	52.567	1.00	73.15	AAAA O
ATOM	1445	CD	GLU	147	20.164	-7.413	51.093	1.00	85.90	AAAA C
ATOM	1446	OE1	GLU	147	21.339	-7.636	50.701	1.00	95.25	AAAA O
ATOM	1447	OE2	GLU	147	19.201	-7.053	50.376	1.00	87.47	AAAA O
ATOM	1448	C	GLU	147	22.136	-8.470	55.541	1.00	69.40	AAAA C
ATOM	1449	O	GLU	147	22.883	-9.437	55.361	1.00	72.86	AAAA O
ATOM	1450	N	CYS	148	22.506	-7.484	56.355	1.00	66.76	AAAA N
ATOM	1452	CA	CYS	148	23.693	-7.588	57.183	1.00	64.65	AAAA C
ATOM	1453	C	CYS	148	23.598	-8.702	58.196	1.00	65.56	AAAA C
ATOM	1454	O	CYS	148	24.473	-9.524	58.414	1.00	65.89	AAAA O
ATOM	1455	CB	CYS	148	23.952	-6.301	58.001	1.00	57.29	AAAA C
ATOM	1456	SG	CYS	148	24.565	-5.091	56.808	1.00	59.22	AAAA S
ATOM	1457	N	GLY	149	22.514	-8.743	58.977	1.00	67.88	AAAA N
ATOM	1459	CA	GLY	149	22.387	-9.744	60.029	1.00	62.15	AAAA C
ATOM	1460	C	GLY	149	23.443	-9.627	61.120	1.00	59.18	AAAA C
ATOM	1461	O	GLY	149	23.925	-10.603	61.699	1.00	61.11	AAAA O
ATOM	1462	N	ASP	150	23.717	-8.426	61.596	1.00	54.88	AAAA N
ATOM	1464	CA	ASP	150	24.794	-8.198	62.533	1.00	55.78	AAAA C
ATOM	1465	CB	ASP	150	25.041	-6.703	62.750	1.00	49.10	AAAA C
ATOM	1466	CG	ASP	150	25.320	-6.034	61.410	1.00	58.50	AAAA C
ATOM	1467	OD1	ASP	150	25.726	-6.796	60.480	1.00	57.73	AAAA O
ATOM	1468	OD2	ASP	150	25.102	-4.819	61.363	1.00	49.69	AAAA O
ATOM	1469	C	ASP	150	24.519	-8.854	63.855	1.00	59.36	AAAA C
ATOM	1470	O	ASP	150	23.392	-8.820	64.377	1.00	67.48	AAAA O
ATOM	1471	N	LEU	151	25.532	-9.369	64.524	1.00	54.39	AAAA N
ATOM	1473	CA	LEU	151	25.314	-9.908	65.853	1.00	52.79	AAAA C
ATOM	1474	CB	LEU	151	25.208	-11.409	65.806	1.00	58.55	AAAA C
ATOM	1475	CG	LEU	151	24.063	-12.101	65.092	1.00	69.45	AAAA C
ATOM	1476	CD1	LEU	151	24.515	-13.421	64.489	1.00	65.26	AAAA C
ATOM	1477	CD2	LEU	151	22.837	-12.372	65.951	1.00	65.43	AAAA C
ATOM	1478	C	LEU	151	26.409	-9.454	66.805	1.00	51.93	AAAA C
ATOM	1479	O	LEU	151	27.598	-9.734	66.634	1.00	55.59	AAAA O
ATOM	1480	N	CYS	152	26.024	-8.773	67.849	1.00	48.62	AAAA N
ATOM	1482	CA	CYS	152	26.992	-8.189	68.740	1.00	56.73	AAAA C
ATOM	1483	C	CYS	152	27.650	-9.325	69.493	1.00	63.58	AAAA C
ATOM	1484	O	CYS	152	27.074	-10.405	69.575	1.00	62.40	AAAA O
ATOM	1485	CB	CYS	152	26.358	-7.144	69.657	1.00	41.99	AAAA C
ATOM	1486	SG	CYS	152	25.985	-5.635	68.703	1.00	55.83	AAAA S
ATOM	1487	N	PRO	153	28.826	-9.072	70.059	1.00	68.05	AAAA N
ATOM	1488	CD	PRO	153	29.618	-7.838	69.903	1.00	66.66	AAAA C
ATOM	1489	CA	PRO	153	29.497	-10.094	70.851	1.00	70.60	AAAA C
ATOM	1490	CB	PRO	153	30.601	-9.323	71.557	1.00	69.98	AAAA C
ATOM	1491	CG	PRO	153	30.861	-8.159	70.690	1.00	70.58	AAAA C
ATOM	1492	C	PRO	153	28.543	-10.734	71.850	1.00	69.64	AAAA C
ATOM	1493	O	PRO	153	27.859	-10.075	72.615	1.00	69.58	AAAA O
ATOM	1494	N	GLY	154	28.444	-12.049	71.843	1.00	71.23	AAAA N
ATOM	1496	CA	GLY	154	27.610	-12.804	72.745	1.00	78.07	AAAA C
ATOM	1497	C	GLY	154	26.245	-13.230	72.223	1.00	81.75	AAAA C
ATOM	1498	O	GLY	154	25.786	-14.318	72.547	1.00	80.26	AAAA O
ATOM	1499	N	THR	155	25.549	-12.468	71.314	1.00	84.54	AAAA N
ATOM	1501	CA	THR	155	24.314	-12.683	70.828	1.00	89.38	AAAA C
ATOM	1502	CB	THR	155	24.016	-11.661	69.705	1.00	85.07	AAAA C
ATOM	1503	OG1	THR	155	24.963	-10.417	70.420	1.00	84.51	AAAA O
ATOM	1505	CG2	THR	155	22.686	-11.995	69.092	1.00	82.27	AAAA C
ATOM	1506	C	THR	155	24.060	-14.094	70.353	1.00	93.69	AAAA C
ATOM	1507	O	THR	155	23.005	-14.664	70.617	1.00	95.92	AAAA O
ATOM	1508	N	MET	156	25.003	-14.655	69.617	1.00	97.23	AAAA N
ATOM	1510	CA	MET	156	24.884	-15.973	69.024	1.00	99.05	AAAA C
ATOM	1511	CB	MET	156	25.907	-16.190	67.896	1.00	100.40	AAAA C
ATOM	1512	CG	MET	156	25.456	-15.675	66.542	0.01	99.75	AAAA C
ATOM	1513	SD	MET	156	23.687	-15.857	66.255	0.01	99.72	AAAA S
ATOM	1514	CE	MET	156	23.664	-17.214	65.087	0.01	99.59	AAAA C
ATOM	1515	C	MET	156	25.027	-17.106	70.032	1.00	100.57	AAAA C
ATOM	1516	O	MET	156	24.353	-18.122	69.835	1.00	101.64	AAAA O
ATOM	1517	N	ALA	157	25.974	-17.057	70.967	1.00	100.53	AAAA N
ATOM	1519	CA	ALA	157	26.022	-18.102	71.986	1.00	101.00	AAAA C
ATOM	1520	CB	ALA	157	27.317	-18.158	72.766	1.00	103.42	AAAA C
ATOM	1521	C	ALA	157	24.856	-17.890	72.959	1.00	101.10	AAAA C
ATOM	1522	O	ALA	157	23.993	-18.654	72.921	1.00	104.59	AAAA O
ATOM	1523	N	GLU	158	24.984	-16.906	73.841	1.00	98.39	AAAA N
ATOM	1525	CA	GLU	158	23.935	-16.629	74.781	1.00	97.43	AAAA C
ATOM	1526	CB	GLU	158	23.128	-17.865	75.208	1.00	105.93	AAAA C
ATOM	1527	CG	GLU	158	21.687	-17.546	75.560	1.00	113.87	AAAA C
ATOM	1528	CD	GLU	158	21.347	-16.081	75.302	1.00	119.34	AAAA C
ATOM	1529	OE1	GLU	158	21.284	-15.733	74.096	1.00	126.27	AAAA O
ATOM	1530	OE2	GLU	158	21.199	-15.317	76.282	1.00	117.79	AAAA O
ATOM	1531	C	GLU	158	24.434	-15.915	76.025	1.00	95.00	AAAA C
ATOM	1532	O	GLU	158	23.988	-16.117	77.145	1.00	95.89	AAAA O
ATOM	1533	N	SER	159	25.276	-14.942	75.769	1.00	93.30	AAAA N
ATOM	1535	CA	SER	159	25.810	-14.119	76.848	1.00	92.28	AAAA C
ATOM	1536	CB	SER	159	26.989	-14.805	77.517	1.00	97.37	AAAA C
ATOM	1537	OG	SER	159	26.972	-14.427	78.886	1.00	98.09	AAAA O
ATOM	1539	C	SER	159	26.228	-12.793	76.226	1.00	91.47	AAAA C
ATOM	1540	O	SER	159	27.368	-12.592	75.810	1.00	92.75	AAAA O
ATOM	1541	N	PRO	160	25.196	-12.007	75.932	1.00	88.65	AAAA N

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ATOM	1542	CD	PRO	160	23.789	-12.122	76.395	1.00	86.67	AAAA C
ATOM	1543	CA	PRO	160	25.463	-10.701	75.361	1.00	84.74	AAAA C
ATOM	1544	CB	PRO	160	24.125	-9.978	75.456	1.00	84.79	AAAA C
ATOM	1545	CG	PRO	160	23.370	-10.671	76.515	1.00	84.62	AAAA C
ATOM	1546	C	PRO	160	26.503	-10.025	76.236	1.00	79.60	AAAA C
ATOM	1547	O	PRO	160	26.319	-9.934	77.456	1.00	79.70	AAAA O
ATOM	1548	N	MET	161	27.563	-9.522	75.596	1.00	74.45	AAAA N
ATOM	1550	CA	MET	161	28.530	-8.735	76.378	1.00	67.04	AAAA C
ATOM	1551	CB	MET	161	29.924	-9.178	76.038	1.00	69.93	AAAA C
ATOM	1552	CG	MET	161	30.118	-10.630	75.706	1.00	71.43	AAAA C
ATOM	1553	SD	MET	161	30.716	-11.621	77.094	1.00	85.25	AAAA S
ATOM	1554	CE	MET	161	29.831	-10.905	78.471	1.00	69.31	AAAA C
ATOM	1555	C	MET	161	28.358	-7.234	76.189	1.00	61.76	AAAA C
ATOM	1556	O	MET	161	28.788	-6.443	77.034	1.00	58.60	AAAA O
ATOM	1557	N	CYS	162	27.681	-6.819	75.095	1.00	54.81	AAAA N
ATOM	1559	CA	CYS	162	27.493	-5.384	74.938	1.00	49.76	AAAA C
ATOM	1560	C	CYS	162	26.306	-4.777	75.670	1.00	51.52	AAAA C
ATOM	1561	O	CYS	162	25.224	-5.324	75.928	1.00	53.89	AAAA O
ATOM	1562	CB	CYS	162	27.422	-5.099	73.459	1.00	48.31	AAAA C
ATOM	1563	SG	CYS	162	28.533	-6.064	72.432	1.00	54.05	AAAA S
ATOM	1564	N	GLU	163	26.409	-3.522	76.031	1.00	46.31	AAAA N
ATOM	1566	CA	GLU	163	25.355	-2.675	76.538	1.00	47.12	AAAA C
ATOM	1567	CB	GLU	163	26.051	-1.412	77.027	1.00	49.95	AAAA C
ATOM	1568	CG	GLU	163	26.476	-1.364	78.465	1.00	62.30	AAAA C
ATOM	1569	CD	GLU	163	25.917	-0.135	79.116	1.00	81.67	AAAA C
ATOM	1570	OE1	GLU	163	26.470	0.473	80.016	1.00	73.22	AAAA O
ATOM	1571	OE2	GLU	163	24.646	0.208	78.721	1.00	80.93	AAAA O
ATOM	1572	C	GLU	163	24.299	-2.340	75.472	1.00	49.05	AAAA C
ATOM	1573	O	GLU	163	24.488	-2.423	74.234	1.00	45.90	AAAA O
ATOM	1574	N	LYS	164	23.142	-1.815	75.880	1.00	47.43	AAAA N
ATOM	1576	CA	LYS	164	22.011	-1.499	75.081	1.00	43.92	AAAA C
ATOM	1577	CB	LYS	164	20.714	-2.244	75.450	1.00	44.48	AAAA C
ATOM	1578	CG	LYS	164	20.560	-3.639	74.870	1.00	48.65	AAAA C
ATOM	1579	CD	LYS	164	19.480	-4.432	75.622	1.00	49.04	AAAA C
ATOM	1580	CE	LYS	164	18.409	-5.012	74.720	1.00	49.21	AAAA C
ATOM	1581	NZ	LYS	164	17.951	-6.372	75.134	1.00	37.67	AAAA N
ATOM	1585	C	LYS	164	21.615	-0.040	75.204	1.00	45.01	AAAA C
ATOM	1586	O	LYS	164	21.466	0.484	76.282	1.00	45.69	AAAA O
ATOM	1587	N	THR	165	21.333	0.570	74.034	1.00	44.94	AAAA N
ATOM	1589	CA	THR	165	20.775	1.943	74.077	1.00	43.13	AAAA C
ATOM	1590	CB	THR	165	21.831	2.952	73.553	1.00	47.81	AAAA C
ATOM	1591	OG1	THR	165	22.053	2.689	72.127	1.00	39.13	AAAA O
ATOM	1593	CG2	THR	165	23.119	2.842	74.362	1.00	40.40	AAAA C
ATOM	1594	C	THR	165	19.532	1.881	73.189	1.00	40.92	AAAA C
ATOM	1595	O	THR	165	19.346	0.897	72.414	1.00	35.91	AAAA O
ATOM	1596	N	THR	166	18.781	2.985	73.173	1.00	39.18	AAAA N
ATOM	1598	CA	THR	166	17.689	2.991	72.182	1.00	42.97	AAAA C
ATOM	1599	CB	THR	166	16.297	3.096	72.833	1.00	55.99	AAAA C
ATOM	1600	OG1	THR	166	15.662	4.385	72.819	1.00	41.42	AAAA O
ATOM	1602	CG2	THR	166	16.157	2.740	74.313	1.00	42.83	AAAA C
ATOM	1603	C	THR	166	17.983	4.051	71.137	1.00	40.17	AAAA C
ATOM	1604	O	THR	166	18.219	5.206	71.509	1.00	35.72	AAAA O
ATOM	1605	N	ILE	167	17.912	3.725	69.866	1.00	42.21	AAAA N
ATOM	1607	CA	ILE	167	18.182	4.672	68.777	1.00	41.05	AAAA C
ATOM	1608	CB	ILE	167	19.437	4.335	67.904	1.00	39.50	AAAA C
ATOM	1609	CG2	ILE	167	19.589	5.346	66.716	1.00	15.26	AAAA C
ATOM	1610	CG1	ILE	167	20.722	4.305	68.724	1.00	36.20	AAAA C
ATOM	1611	CD1	ILE	167	21.899	3.665	67.966	1.00	35.70	AAAA C
ATOM	1612	C	ILE	167	16.937	4.524	67.882	1.00	40.94	AAAA C
ATOM	1613	O	ILE	167	16.655	3.435	67.394	1.00	35.51	AAAA O
ATOM	1614	N	ASN	168	16.318	5.635	67.537	1.00	42.29	AAAA N
ATOM	1616	CA	ASN	168	15.112	5.633	66.713	1.00	45.22	AAAA C
ATOM	1617	CB	ASN	168	15.526	5.253	65.292	1.00	45.69	AAAA C
ATOM	1618	CG	ASN	168	14.497	5.696	64.244	1.00	51.19	AAAA C
ATOM	1619	OD1	ASN	168	14.344	5.112	63.150	1.00	41.75	AAAA O
ATOM	1620	ND2	ASN	168	13.749	6.763	64.522	1.00	48.89	AAAA N
ATOM	1623	C	ASN	168	13.954	4.739	67.141	1.00	46.55	AAAA C
ATOM	1624	O	ASN	168	13.544	3.879	66.326	1.00	45.95	AAAA O
ATOM	1625	N	ASN	169	13.644	4.728	68.433	1.00	45.12	AAAA N
ATOM	1627	CA	ASN	169	12.717	3.759	69.007	1.00	43.67	AAAA C
ATOM	1628	CB	ASN	169	11.315	4.106	68.540	1.00	36.84	AAAA C
ATOM	1629	CG	ASN	169	10.943	5.487	69.093	1.00	42.75	AAAA C
ATOM	1630	OD1	ASN	169	10.917	5.779	70.289	1.00	36.67	AAAA O
ATOM	1631	ND2	ASN	169	10.658	6.448	68.213	1.00	40.74	AAAA N
ATOM	1634	C	ASN	169	13.003	2.306	68.719	1.00	44.69	AAAA C
ATOM	1635	O	ASN	169	12.100	1.544	68.383	1.00	45.72	AAAA O
ATOM	1636	N	GLU	170	14.226	1.907	68.862	1.00	41.64	AAAA N
ATOM	1638	CA	GLU	170	14.655	0.513	68.850	1.00	45.88	AAAA C
ATOM	1639	CB	GLU	170	15.283	0.278	67.524	1.00	55.92	AAAA C
ATOM	1640	CG	GLU	170	15.020	-0.953	66.702	1.00	67.08	AAAA C
ATOM	1641	CD	GLU	170	14.517	-0.605	65.294	1.00	74.56	AAAA C
ATOM	1642	OE1	GLU	170	13.969	0.466	65.049	1.00	77.75	AAAA O
ATOM	1643	OE2	GLU	170	14.763	-1.437	64.389	1.00	70.71	AAAA O
ATOM	1644	C	GLU	170	15.647	0.379	70.010	1.00	47.10	AAAA C
ATOM	1645	O	GLU	170	16.582	1.172	70.213	1.00	49.92	AAAA O

Figure 1A-15

ATOM	1646	N	TYR	171	15.344	-0.462	70.952	1.00 49.10	AAAA N
ATOM	1648	CA	TYR	171	16.231	-0.689	72.097	1.00 51.81	AAAA C
ATOM	1649	CB	TYR	171	15.434	-0.861	73.350	1.00 49.94	AAAA C
ATOM	1650	CG	TYR	171	16.175	-1.168	74.620	1.00 48.90	AAAA C
ATOM	1651	CD1	TYR	171	16.980	-0.210	75.237	1.00 46.46	AAAA C
ATOM	1652	CE1	TYR	171	17.634	-0.469	76.407	1.00 41.17	AAAA C
ATOM	1653	CD2	TYR	171	16.065	-2.429	75.194	1.00 43.62	AAAA C
ATOM	1654	CE2	TYR	171	16.734	-2.675	76.366	1.00 44.44	AAAA C
ATOM	1655	CZ	TYR	171	17.516	-1.718	76.973	1.00 43.58	AAAA C
ATOM	1656	OH	TYR	171	18.174	-2.017	78.146	1.00 40.16	AAAA O
ATOM	1658	C	TYR	171	17.058	-1.938	71.832	1.00 51.41	AAAA C
ATOM	1659	O	TYR	171	16.519	-3.024	71.889	1.00 52.59	AAAA O
ATOM	1660	N	ASN	172	18.331	-1.752	71.493	1.00 53.70	AAAA N
ATOM	1662	CA	ASN	172	19.203	-2.898	71.193	1.00 52.36	AAAA C
ATOM	1663	CB	ASN	172	19.085	-3.278	69.709	1.00 55.43	AAAA C
ATOM	1664	CG	ASN	172	18.939	-4.766	69.498	1.00 61.75	AAAA C
ATOM	1665	OD1	ASN	172	19.233	-5.646	70.304	1.00 61.61	AAAA O
ATOM	1666	ND2	ASN	172	18.449	-5.048	68.295	1.00 57.97	AAAA N
ATOM	1669	C	ASN	172	20.665	-2.712	71.564	1.00 43.81	AAAA C
ATOM	1670	O	ASN	172	21.163	-1.760	72.213	1.00 39.38	AAAA O
ATOM	1671	N	TYR	173	21.373	-3.796	71.393	1.00 43.20	AAAA N
ATOM	1673	CA	TYR	173	22.794	-3.929	71.698	1.00 44.76	AAAA C
ATOM	1674	CB	TYR	173	23.223	-5.374	71.514	1.00 41.66	AAAA C
ATOM	1675	CG	TYR	173	22.759	-6.274	72.630	1.00 45.18	AAAA C
ATOM	1676	CD1	TYR	173	21.931	-7.316	72.237	1.00 46.48	AAAA C
ATOM	1677	CE1	TYR	173	21.438	-8.181	73.193	1.00 51.36	AAAA C
ATOM	1678	CD2	TYR	173	23.081	-6.132	73.978	1.00 44.86	AAAA C
ATOM	1679	CE2	TYR	173	22.583	-7.016	74.916	1.00 46.92	AAAA C
ATOM	1680	CZ	TYR	173	21.757	-8.036	74.535	1.00 50.33	AAAA C
ATOM	1681	OH	TYR	173	21.171	-9.006	75.320	1.00 50.64	AAAA O
ATOM	1683	C	TYR	173	23.673	-3.099	70.762	1.00 46.94	AAAA C
ATOM	1684	O	TYR	173	23.389	-2.983	69.567	1.00 49.76	AAAA O
ATOM	1685	N	ARG	174	24.579	-2.318	71.366	1.00 47.79	AAAA N
ATOM	1687	CA	ARG	174	25.517	-1.496	70.577	1.00 49.13	AAAA C
ATOM	1688	CB	ARG	174	25.537	-0.132	71.233	1.00 44.32	AAAA C
ATOM	1689	CG	ARG	174	24.210	0.623	71.234	1.00 48.14	AAAA C
ATOM	1690	CD	ARG	174	23.372	0.344	70.003	1.00 51.47	AAAA C
ATOM	1691	NE	ARG	174	21.974	0.760	70.039	1.00 48.35	AAAA N
ATOM	1693	CZ	ARG	174	21.144	0.570	69.017	1.00 48.23	AAAA C
ATOM	1694	NH1	ARG	174	21.477	0.022	67.864	1.00 38.96	AAAA N
ATOM	1697	NH2	ARG	174	19.909	1.022	69.197	1.00 54.65	AAAA N
ATOM	1700	C	ARG	174	26.921	-2.094	70.461	1.00 45.98	AAAA C
ATOM	1701	O	ARG	174	27.548	-2.557	71.406	1.00 44.97	AAAA O
ATOM	1702	N	CYS	175	27.493	-2.183	69.294	1.00 46.21	AAAA N
ATOM	1704	CA	CYS	175	28.787	-2.758	68.997	1.00 45.60	AAAA C
ATOM	1705	C	CYS	175	29.407	-2.395	67.665	1.00 46.23	AAAA C
ATOM	1706	O	CYS	175	28.755	-2.018	66.665	1.00 44.78	AAAA O
ATOM	1707	CB	CYS	175	28.576	-4.253	69.167	1.00 35.62	AAAA C
ATOM	1708	SG	CYS	175	27.812	-5.181	67.827	1.00 51.92	AAAA S
ATOM	1709	N	TRP	176	30.764	-2.517	67.583	1.00 40.16	AAAA N
ATOM	1711	CA	TRP	176	31.430	-2.091	66.325	1.00 42.48	AAAA C
ATOM	1712	CB	TRP	176	32.769	-1.409	66.564	1.00 36.38	AAAA C
ATOM	1713	CG	TRP	176	32.689	-0.069	67.203	1.00 25.56	AAAA C
ATOM	1714	CD2	TRP	176	32.588	1.186	66.480	1.00 23.71	AAAA C
ATOM	1715	CE2	TRP	176	32.559	2.217	67.422	1.00 32.40	AAAA C
ATOM	1716	CE3	TRP	176	32.535	1.520	65.141	1.00 24.31	AAAA C
ATOM	1717	CD1	TRP	176	32.730	0.257	68.525	1.00 28.37	AAAA C
ATOM	1718	NE1	TRP	176	32.636	1.636	68.678	1.00 37.21	AAAA N
ATOM	1720	CZ2	TRP	176	32.441	3.565	67.088	1.00 28.51	AAAA C
ATOM	1721	CZ3	TRP	176	32.447	2.822	64.789	1.00 22.23	AAAA C
ATOM	1722	CH2	TRP	176	32.406	3.817	65.745	1.00 29.51	AAAA C
ATOM	1723	C	TRP	176	31.631	-3.268	65.408	1.00 39.30	AAAA C
ATOM	1724	O	TRP	176	31.703	-3.121	64.199	1.00 39.15	AAAA O
ATOM	1725	N	THR	177	31.682	-4.460	66.005	1.00 41.33	AAAA N
ATOM	1727	CA	THR	177	31.964	-5.644	65.161	1.00 49.28	AAAA C
ATOM	1728	CB	THR	177	33.480	-6.062	65.162	1.00 43.66	AAAA C
ATOM	1729	OG1	THR	177	34.309	-5.025	64.615	1.00 47.85	AAAA O
ATOM	1731	CG2	THR	177	33.676	-7.271	64.283	1.00 58.51	AAAA C
ATOM	1732	C	THR	177	31.290	-6.814	65.858	1.00 48.76	AAAA C
ATOM	1733	O	THR	177	30.982	-6.539	67.002	1.00 51.53	AAAA O
ATOM	1734	N	THR	178	31.269	-8.000	65.331	1.00 51.96	AAAA N
ATOM	1736	CA	THR	178	30.921	-9.236	65.948	1.00 58.95	AAAA C
ATOM	1737	CB	THR	178	31.253	-10.500	65.092	1.00 66.55	AAAA C
ATOM	1738	OG1	THR	178	31.505	-10.066	63.734	1.00 75.70	AAAA O
ATOM	1740	CG2	THR	178	30.104	-11.489	65.148	1.00 74.23	AAAA C
ATOM	1741	C	THR	178	31.714	-9.539	67.213	1.00 60.25	AAAA C
ATOM	1742	O	THR	178	31.264	-10.202	68.135	1.00 66.05	AAAA O
ATOM	1743	N	ASN	179	32.977	-9.130	67.253	1.00 57.56	AAAA N
ATOM	1745	CA	ASN	179	33.793	-9.392	68.443	1.00 53.39	AAAA C
ATOM	1746	CB	ASN	179	35.130	-10.024	68.068	1.00 48.48	AAAA C
ATOM	1747	CG	ASN	179	34.997	-11.218	67.126	1.00 56.25	AAAA C
ATOM	1748	OD1	ASN	179	34.412	-12.241	67.553	1.00 51.38	AAAA O
ATOM	1749	ND2	ASN	179	35.229	-11.063	65.863	1.00 48.10	AAAA N
ATOM	1752	C	ASN	179	34.096	-8.100	69.298	1.00 50.78	AAAA C
ATOM	1753	O	ASN	179	31.556	-8.377	70.429	1.00 57.97	AAAA O

Figure 1A-16

ATOM	1754	N	ARG	180	33.626	-7.022	68.913	1.00	47.06	AAAA N
ATOM	1756	CA	ARG	180	33.908	-5.820	69.691	1.00	48.25	AAAA C
ATOM	1757	CB	ARG	180	34.925	-4.962	69.074	1.00	49.72	AAAA C
ATOM	1758	CG	ARG	180	36.324	-5.501	69.285	1.00	60.92	AAAA C
ATOM	1759	CD	ARG	180	37.288	-4.948	68.279	1.00	70.83	AAAA C
ATOM	1760	NE	ARG	180	38.569	-5.605	68.203	1.00	76.18	AAAA N
ATOM	1762	CZ	ARG	180	39.298	-5.895	69.276	1.00	76.59	AAAA C
ATOM	1763	NH1	ARG	180	38.877	-5.608	70.498	1.00	80.82	AAAA N
ATOM	1766	NH2	ARG	180	40.474	-6.478	69.180	1.00	79.33	AAAA N
ATOM	1769	C	ARG	180	32.530	-4.977	69.821	1.00	48.10	AAAA C
ATOM	1770	O	ARG	180	31.862	-4.476	68.905	1.00	46.99	AAAA O
ATOM	1771	N	CYS	181	32.230	-4.728	71.063	1.00	44.80	AAAA N
ATOM	1773	CA	CYS	181	31.199	-3.924	71.619	1.00	45.20	AAAA C
ATOM	1774	C	CYS	181	31.646	-2.463	71.692	1.00	44.50	AAAA C
ATOM	1775	O	CYS	181	32.835	-2.227	71.724	1.00	47.09	AAAA O
ATOM	1776	CB	CYS	181	30.940	-4.282	73.110	1.00	43.88	AAAA C
ATOM	1777	SG	CYS	181	30.363	-5.944	73.316	1.00	56.08	AAAA S
ATOM	1778	N	GLN	182	30.659	-1.600	71.690	1.00	39.30	AAAA N
ATOM	1780	CA	GLN	182	30.948	-0.177	71.690	1.00	43.43	AAAA C
ATOM	1781	CB	GLN	182	29.749	0.619	71.196	1.00	23.99	AAAA C
ATOM	1782	CG	GLN	182	29.809	2.085	71.435	1.00	28.57	AAAA C
ATOM	1783	CD	GLN	182	28.757	2.867	70.733	1.00	29.35	AAAA C
ATOM	1784	OE1	GLN	182	27.898	2.304	70.033	1.00	30.55	AAAA O
ATOM	1785	NE2	GLN	182	28.857	4.164	70.912	1.00	28.14	AAAA N
ATOM	1788	C	GLN	182	31.218	0.089	73.162	1.00	46.07	AAAA C
ATOM	1789	O	GLN	182	30.458	-0.327	74.041	1.00	47.01	AAAA O
ATOM	1790	N	LYS	183	32.213	0.866	73.524	1.00	46.98	AAAA N
ATOM	1792	CA	LYS	183	32.479	1.064	74.934	1.00	45.26	AAAA C
ATOM	1793	CB	LYS	183	33.966	1.275	75.185	1.00	48.68	AAAA C
ATOM	1794	CG	LYS	183	34.865	0.267	74.482	1.00	47.95	AAAA C
ATOM	1795	CD	LYS	183	36.337	0.734	74.523	1.00	48.06	AAAA C
ATOM	1796	CE	LYS	183	37.178	-0.208	73.684	1.00	46.78	AAAA C
ATOM	1797	NZ	LYS	183	38.499	-0.654	74.158	1.00	44.00	AAAA N
ATOM	1801	C	LYS	183	31.659	2.205	75.477	1.00	48.13	AAAA C
ATOM	1802	O	LYS	183	31.679	3.305	74.946	1.00	48.84	AAAA O
ATOM	1803	N	MET	184	31.165	2.014	76.698	1.00	52.59	AAAA N
ATOM	1805	CA	MET	184	30.388	3.041	77.413	1.00	53.22	AAAA C
ATOM	1806	CB	MET	184	28.927	2.613	77.537	1.00	54.27	AAAA C
ATOM	1807	CG	MET	184	27.855	2.955	76.536	1.00	56.16	AAAA C
ATOM	1808	SD	MET	184	26.911	1.601	75.912	1.00	57.56	AAAA S
ATOM	1809	CE	MET	184	26.738	1.855	74.171	1.00	46.57	AAAA C
ATOM	1810	C	MET	184	31.951	3.200	78.770	1.00	50.55	AAAA C
ATOM	1811	O	MET	184	31.770	2.292	79.116	1.00	48.82	AAAA O
ATOM	1812	N	CYS	185	30.796	4.195	79.565	1.00	53.97	AAAA N
ATOM	1814	CA	CYS	185	31.342	4.365	80.892	1.00	58.63	AAAA C
ATOM	1815	C	CYS	185	30.297	4.320	81.989	1.00	65.16	AAAA C
ATOM	1816	O	CYS	185	29.133	4.649	81.761	1.00	65.87	AAAA O
ATOM	1817	CB	CYS	185	31.965	5.772	81.000	1.00	60.37	AAAA C
ATOM	1818	SG	CYS	185	33.623	5.771	80.312	1.00	60.09	AAAA S
ATOM	1819	N	PRO	186	30.688	3.978	83.206	1.00	69.41	AAAA N
ATOM	1820	CD	PRO	186	32.066	3.777	83.702	1.00	71.11	AAAA C
ATOM	1821	CA	PRO	186	29.717	3.933	84.304	1.00	69.11	AAAA C
ATOM	1822	CB	PRO	186	30.523	3.487	85.503	1.00	68.03	AAAA C
ATOM	1823	CG	PRO	186	31.910	3.920	85.198	1.00	71.02	AAAA C
ATOM	1824	C	PRO	186	29.120	5.320	84.431	1.00	69.47	AAAA C
ATOM	1825	O	PRO	186	29.820	6.345	84.507	1.00	65.93	AAAA O
ATOM	1826	N	SER	187	27.801	5.367	84.546	1.00	68.78	AAAA N
ATOM	1828	CA	SER	187	27.050	6.592	84.750	1.00	69.29	AAAA C
ATOM	1829	CB	SER	187	25.594	6.287	85.129	1.00	78.29	AAAA C
ATOM	1830	OG	SER	187	25.474	4.935	85.566	1.00	91.78	AAAA O
ATOM	1832	C	SER	187	27.630	7.476	85.836	1.00	67.19	AAAA C
ATOM	1833	O	SER	187	27.606	8.708	85.803	1.00	63.98	AAAA O
ATOM	1834	N	THR	188	28.108	6.853	86.908	1.00	68.20	AAAA N
ATOM	1836	CA	THR	188	28.870	7.507	87.963	1.00	68.39	AAAA C
ATOM	1837	CB	THR	188	29.805	6.459	88.618	1.00	73.84	AAAA C
ATOM	1838	OG1	THR	188	28.943	5.365	89.016	1.00	89.33	AAAA O
ATOM	1840	CG2	THR	188	30.605	7.048	89.759	1.00	73.71	AAAA C
ATOM	1841	C	THR	188	29.802	8.583	87.429	1.00	67.52	AAAA C
ATOM	1842	O	THR	188	29.843	9.739	87.834	1.00	68.30	AAAA O
ATOM	1843	N	CYS	189	30.643	8.247	86.446	1.00	63.89	AAAA N
ATOM	1845	CA	CYS	189	31.583	9.116	85.917	1.00	57.29	AAAA C
ATOM	1846	C	CYS	189	30.951	10.331	85.195	1.00	57.70	AAAA C
ATOM	1847	O	CYS	189	31.648	11.327	85.017	1.00	57.56	AAAA O
ATOM	1848	CB	CYS	189	32.416	8.372	84.769	1.00	58.67	AAAA C
ATOM	1849	SG	CYS	189	33.347	7.001	85.535	1.00	53.46	AAAA S
ATOM	1850	N	GLY	190	29.689	10.322	84.806	1.00	56.91	AAAA N
ATOM	1852	CA	GLY	190	29.038	11.521	84.323	1.00	57.28	AAAA C
ATOM	1853	C	GLY	190	29.444	11.834	82.886	1.00	59.62	AAAA C
ATOM	1854	O	GLY	190	29.609	10.932	82.082	1.00	57.91	AAAA O
ATOM	1855	N	LYS	191	29.842	13.052	82.624	1.00	62.78	AAAA N
ATOM	1857	CA	LYS	191	30.359	13.520	81.364	1.00	67.72	AAAA C
ATOM	1858	CB	LYS	191	30.058	15.035	81.214	1.00	72.76	AAAA C
ATOM	1859	CG	LYS	191	28.568	15.288	81.002	1.00	84.69	AAAA C
ATOM	1860	CD	LYS	191	28.207	16.733	80.723	1.00	90.15	AAAA C
ATOM	1861	CE	LYS	191	26.713	16.806	80.471	1.00	91.93	AAAA C

Figure 1A-17

ATOM	1962	HZ	LYS	191	26.368	16.182	79.152	1.00	97.62	AAAA H
ATOM	1966	C	LYS	191	31.868	13.299	81.270	1.00	70.13	AAAA C
ATOM	1967	O	LYS	191	32.486	13.935	80.415	1.00	71.76	AAAA O
ATOM	1968	N	ARG	192	32.488	12.441	82.079	1.00	66.20	AAAA N
ATOM	1970	CA	ARG	192	33.885	12.171	82.044	1.00	59.95	AAAA C
ATOM	1971	CB	ARG	192	34.505	12.070	83.432	1.00	66.58	AAAA C
ATOM	1972	CG	ARG	192	34.670	13.400	84.131	1.00	71.59	AAAA C
ATOM	1973	CD	ARG	192	34.386	13.330	85.625	1.00	73.91	AAAA C
ATOM	1974	NE	ARG	192	35.622	13.280	86.377	1.00	85.74	AAAA N
ATOM	1976	CZ	ARG	192	35.968	12.407	87.330	1.00	90.67	AAAA C
ATOM	1977	NH1	ARG	192	35.026	11.486	87.600	1.00	88.49	AAAA N
ATOM	1980	NH2	ARG	192	37.162	12.463	87.950	1.00	72.95	AAAA N
ATOM	1983	C	ARG	192	34.221	10.851	81.337	1.00	58.83	AAAA C
ATOM	1984	O	ARG	192	33.336	10.007	81.176	1.00	55.13	AAAA O
ATOM	1985	N	ALA	193	35.521	10.795	80.968	1.00	50.19	AAAA N
ATOM	1987	CA	ALA	193	35.962	9.557	80.355	1.00	46.24	AAAA C
ATOM	1988	CB	ALA	193	37.167	9.921	79.541	1.00	45.15	AAAA C
ATOM	1989	C	ALA	193	36.221	8.525	81.451	1.00	48.97	AAAA C
ATOM	1990	O	ALA	193	36.220	8.908	82.616	1.00	44.80	AAAA O
ATOM	1991	N	CYS	194	36.544	7.304	81.065	1.00	50.30	AAAA N
ATOM	1993	CA	CYS	194	36.836	6.302	82.043	1.00	57.50	AAAA C
ATOM	1994	C	CYS	194	37.834	5.304	81.448	1.00	61.25	AAAA C
ATOM	1995	O	CYS	194	37.952	5.291	80.216	1.00	61.52	AAAA O
ATOM	1996	CB	CYS	194	35.510	5.741	82.504	1.00	57.96	AAAA C
ATOM	1997	SG	CYS	194	34.785	4.524	81.402	1.00	54.49	AAAA S
ATOM	1998	N	THR	195	38.422	4.499	82.311	1.00	58.51	AAAA N
ATOM	1900	CA	THR	195	39.462	3.584	81.913	1.00	57.42	AAAA C
ATOM	1901	CB	THR	195	40.237	3.142	83.188	1.00	65.73	AAAA C
ATOM	1902	OG1	THR	195	40.280	4.248	84.091	1.00	70.15	AAAA O
ATOM	1904	CG2	THR	195	41.684	2.864	82.745	1.00	77.91	AAAA C
ATOM	1905	C	THR	195	38.857	2.404	81.226	1.00	54.59	AAAA C
ATOM	1906	O	THR	195	37.633	2.315	81.319	1.00	58.75	AAAA O
ATOM	1907	N	GLU	196	39.610	1.408	80.882	1.00	55.95	AAAA N
ATOM	1909	CA	GLU	196	39.139	0.145	80.364	1.00	60.07	AAAA C
ATOM	1910	CB	GLU	196	40.395	-0.612	79.914	1.00	68.06	AAAA C
ATOM	1911	CG	GLU	196	40.479	-1.146	78.526	1.00	73.96	AAAA C
ATOM	1912	CD	GLU	196	39.235	-0.983	77.670	1.00	83.08	AAAA C
ATOM	1913	OE1	GLU	196	38.356	-1.884	77.687	1.00	81.19	AAAA O
ATOM	1914	OE2	GLU	196	39.060	0.041	76.939	1.00	82.10	AAAA O
ATOM	1915	C	GLU	196	38.382	-0.579	81.467	1.00	63.91	AAAA C
ATOM	1916	O	GLU	196	37.690	-1.537	81.159	1.00	63.51	AAAA O
ATOM	1917	N	ASN	197	38.666	-0.312	82.739	1.00	67.40	AAAA N
ATOM	1919	CA	ASN	197	38.025	-0.947	83.886	1.00	69.21	AAAA C
ATOM	1920	CB	ASN	197	39.021	-1.394	84.966	1.00	68.49	AAAA C
ATOM	1921	CG	ASN	197	39.722	-2.692	84.672	0.01	69.09	AAAA C
ATOM	1922	OD1	ASN	197	40.364	-3.273	85.551	0.01	69.04	AAAA O
ATOM	1923	ND2	ASN	197	39.622	-3.183	83.443	0.01	68.97	AAAA N
ATOM	1926	C	ASN	197	37.033	0.043	84.486	1.00	69.01	AAAA C
ATOM	1927	O	ASN	197	36.845	0.281	85.664	1.00	68.24	AAAA O
ATOM	1928	N	ASN	198	36.384	0.795	83.607	1.00	69.91	AAAA N
ATOM	1930	CA	ASN	198	35.356	1.734	84.048	1.00	68.48	AAAA C
ATOM	1931	CB	ASN	198	34.120	0.880	84.373	1.00	60.12	AAAA C
ATOM	1932	CG	ASN	198	33.806	0.095	83.102	1.00	69.29	AAAA C
ATOM	1933	OD1	ASN	198	33.475	0.654	82.054	1.00	73.20	AAAA O
ATOM	1934	ND2	ASN	198	33.980	-1.206	83.268	1.00	65.34	AAAA N
ATOM	1937	C	ASN	198	35.784	2.563	85.228	1.00	64.01	AAAA C
ATOM	1938	O	ASN	198	34.992	2.827	86.117	1.00	64.20	AAAA O
ATOM	1939	N	GLU	199	36.955	3.164	85.157	1.00	64.75	AAAA N
ATOM	1941	CA	GLU	199	37.342	4.054	86.255	1.00	64.61	AAAA C
ATOM	1942	CB	GLU	199	38.702	3.624	86.744	1.00	66.11	AAAA C
ATOM	1943	CG	GLU	199	38.846	3.717	88.233	1.00	77.15	AAAA C
ATOM	1944	CD	GLU	199	39.579	2.532	88.832	1.00	80.24	AAAA C
ATOM	1945	OE1	GLU	199	39.385	2.406	90.066	1.00	81.65	AAAA O
ATOM	1946	OE2	GLU	199	40.282	1.821	88.079	1.00	77.94	AAAA O
ATOM	1947	C	GLU	199	37.314	5.463	85.690	1.00	62.92	AAAA C
ATOM	1948	O	GLU	199	37.922	5.676	84.632	1.00	63.62	AAAA O
ATOM	1949	N	CYS	200	36.605	6.393	86.313	1.00	56.16	AAAA N
ATOM	1951	CA	CYS	200	36.600	7.721	85.740	1.00	55.11	AAAA C
ATOM	1952	C	CYS	200	37.978	8.315	85.521	1.00	57.77	AAAA C
ATOM	1953	O	CYS	200	38.884	8.058	86.300	1.00	63.79	AAAA O
ATOM	1954	CB	CYS	200	35.824	8.664	86.649	1.00	52.70	AAAA C
ATOM	1955	SG	CYS	200	34.196	8.100	87.098	1.00	55.85	AAAA S
ATOM	1956	N	CYS	201	38.124	9.192	84.540	1.00	54.50	AAAA N
ATOM	1958	CA	CYS	201	39.338	9.889	84.202	1.00	48.19	AAAA C
ATOM	1959	C	CYS	201	39.236	11.287	84.786	1.00	42.34	AAAA C
ATOM	1960	O	CYS	201	38.165	11.704	85.166	1.00	54.32	AAAA O
ATOM	1961	CB	CYS	201	39.590	10.070	82.695	1.00	40.90	AAAA C
ATOM	1962	SG	CYS	201	39.644	8.597	81.747	1.00	51.42	AAAA S
ATOM	1963	N	HIS	202	40.254	12.075	84.675	1.00	39.12	AAAA N
ATOM	1965	CA	HIS	202	40.290	13.461	85.128	1.00	41.55	AAAA C
ATOM	1966	C	HIS	202	39.284	14.184	84.289	1.00	46.59	AAAA C
ATOM	1967	O	HIS	202	39.176	13.851	83.103	1.00	51.64	AAAA O
ATOM	1968	CB	HIS	202	41.712	13.952	84.819	1.00	45.20	AAAA C
ATOM	1969	CG	HIS	202	41.996	15.330	85.267	1.00	39.71	AAAA C
ATOM	1970	ND1	HIS	202	42.501	16.404	84.550	1.00	51.32	AAAA N

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ATOM	1971	CE1	HIS	202	41.887	17.528	85.170	1.00	47.62	AAAA C
ATOM	1972	CD2	HIS	202	42.665	15.813	86.340	1.00	39.59	AAAA C
ATOM	1973	NE2	HIS	202	42.563	17.207	86.258	1.00	43.48	AAAA N
ATOM	1975	N	PRO	203	38.738	15.293	84.711	1.00	47.74	AAAA N
ATOM	1976	CD	PRO	203	38.758	15.840	86.082	1.00	46.97	AAAA C
ATOM	1977	CA	PRO	203	37.780	15.987	83.879	1.00	46.44	AAAA C
ATOM	1978	CB	PRO	203	37.248	17.107	84.742	1.00	39.47	AAAA C
ATOM	1979	CG	PRO	203	38.131	17.210	85.910	1.00	43.37	AAAA C
ATOM	1980	C	PRO	203	38.440	16.519	82.607	1.00	53.27	AAAA C
ATOM	1981	O	PRO	203	37.698	17.045	81.731	1.00	53.16	AAAA O
ATOM	1982	N	GLU	204	39.792	16.535	82.561	1.00	50.34	AAAA N
ATOM	1984	CA	GLU	204	40.439	17.139	81.381	1.00	50.52	AAAA C
ATOM	1985	CB	GLU	204	41.727	17.891	81.804	1.00	48.58	AAAA C
ATOM	1986	CG	GLU	204	41.397	19.251	82.397	1.00	43.74	AAAA C
ATOM	1987	CD	GLU	204	40.778	20.282	81.501	1.00	55.26	AAAA C
ATOM	1988	OE1	GLU	204	40.766	20.344	80.248	1.00	64.04	AAAA O
ATOM	1989	OE2	GLU	204	40.226	21.198	82.141	1.00	57.66	AAAA O
ATOM	1990	C	GLU	204	40.718	16.084	80.319	1.00	45.71	AAAA C
ATOM	1991	O	GLU	204	41.238	16.405	79.251	1.00	46.56	AAAA O
ATOM	1992	N	CYS	205	40.612	14.830	80.735	1.00	42.05	AAAA N
ATOM	1994	CA	CYS	205	40.997	13.764	79.838	1.00	45.81	AAAA C
ATOM	1995	C	CYS	205	39.892	13.628	78.819	1.00	49.20	AAAA C
ATOM	1996	O	CYS	205	38.746	13.920	79.133	1.00	50.34	AAAA O
ATOM	1997	CB	CYS	205	41.288	12.491	80.572	1.00	51.55	AAAA C
ATOM	1998	SG	CYS	205	42.923	12.246	81.251	1.00	52.89	AAAA S
ATOM	1999	N	LEU	206	40.232	13.579	77.520	1.00	49.68	AAAA N
ATOM	2001	CA	LEU	206	39.169	13.446	76.533	1.00	41.49	AAAA C
ATOM	2002	CB	LEU	206	39.266	14.505	75.462	1.00	48.66	AAAA C
ATOM	2003	CG	LEU	206	38.274	14.365	74.305	1.00	47.45	AAAA C
ATOM	2004	CD1	LEU	206	36.879	14.243	74.895	1.00	45.79	AAAA C
ATOM	2005	CD2	LEU	206	38.331	15.599	73.420	1.00	50.71	AAAA C
ATOM	2006	C	LEU	206	39.310	12.109	75.912	1.00	38.44	AAAA C
ATOM	2007	O	LEU	206	40.400	11.568	75.813	1.00	36.59	AAAA O
ATOM	2008	N	GLY	207	38.264	11.359	75.681	1.00	42.41	AAAA N
ATOM	2010	CA	GLY	207	38.403	10.098	74.978	1.00	40.57	AAAA C
ATOM	2011	C	GLY	207	38.466	9.061	76.058	1.00	47.15	AAAA C
ATOM	2012	O	GLY	207	37.668	8.102	76.057	1.00	45.04	AAAA O
ATOM	2013	N	SER	208	39.622	9.079	76.760	1.00	50.36	AAAA N
ATOM	2015	CA	SER	208	39.832	7.898	77.660	1.00	48.27	AAAA C
ATOM	2016	CB	SER	208	39.909	6.631	76.787	1.00	35.77	AAAA C
ATOM	2017	OG	SER	208	40.600	5.597	77.461	1.00	61.34	AAAA O
ATOM	2019	C	SER	208	41.144	8.068	78.377	1.00	49.17	AAAA C
ATOM	2020	O	SER	208	41.781	9.084	78.163	1.00	48.24	AAAA O
ATOM	2021	N	CYS	209	41.599	7.123	79.189	1.00	52.04	AAAA N
ATOM	2023	CA	CYS	209	42.824	7.307	79.964	1.00	55.98	AAAA C
ATOM	2024	C	CYS	209	43.453	6.035	80.484	1.00	57.41	AAAA C
ATOM	2025	O	CYS	209	42.862	4.963	80.423	1.00	58.33	AAAA O
ATOM	2026	CB	CYS	209	42.629	8.258	81.146	1.00	52.51	AAAA C
ATOM	2027	SG	CYS	209	41.380	7.602	82.261	1.00	58.22	AAAA S
ATOM	2028	N	SER	210	44.734	6.145	80.883	1.00	59.37	AAAA N
ATOM	2030	CA	SER	210	45.506	4.950	81.318	1.00	58.10	AAAA C
ATOM	2031	CB	SER	210	47.022	5.083	81.105	1.00	55.07	AAAA C
ATOM	2032	OG	SER	210	47.546	6.204	81.819	1.00	64.49	AAAA O
ATOM	2034	C	SER	210	45.331	4.713	82.826	1.00	56.34	AAAA C
ATOM	2035	O	SER	210	45.529	3.614	83.326	1.00	54.42	AAAA O
ATOM	2036	N	ALA	211	45.105	5.806	83.548	1.00	52.79	AAAA N
ATOM	2038	CA	ALA	211	44.980	5.684	85.004	1.00	56.60	AAAA C
ATOM	2039	CB	ALA	211	46.333	5.926	85.649	1.00	63.41	AAAA C
ATOM	2040	C	ALA	211	43.962	6.747	85.395	1.00	56.58	AAAA C
ATOM	2041	O	ALA	211	43.957	7.792	84.711	1.00	50.78	AAAA O
ATOM	2042	N	PRO	212	43.117	6.416	86.359	1.00	55.93	AAAA N
ATOM	2043	CD	PRO	212	43.042	5.166	87.115	1.00	55.86	AAAA C
ATOM	2044	CA	PRO	212	41.951	7.257	86.575	1.00	55.50	AAAA C
ATOM	2045	CB	PRO	212	41.104	6.470	87.556	1.00	59.65	AAAA C
ATOM	2046	CG	PRO	212	42.021	5.483	88.175	1.00	51.56	AAAA C
ATOM	2047	C	PRO	212	42.409	8.535	87.177	1.00	53.64	AAAA C
ATOM	2048	O	PRO	212	43.611	8.725	87.393	1.00	57.48	AAAA O
ATOM	2049	N	ALA	213	41.537	9.492	87.347	1.00	53.87	AAAA N
ATOM	2051	CA	ALA	213	41.912	10.710	88.057	1.00	59.41	AAAA C
ATOM	2052	CB	ALA	213	41.783	10.255	89.541	1.00	66.49	AAAA C
ATOM	2053	C	ALA	213	43.289	11.300	87.907	1.00	61.40	AAAA C
ATOM	2054	O	ALA	213	43.729	12.202	88.652	1.00	60.03	AAAA O
ATOM	2055	N	ASN	214	44.068	10.999	86.899	1.00	64.89	AAAA N
ATOM	2057	CA	ASN	214	45.366	11.551	86.596	1.00	63.36	AAAA C
ATOM	2063	C	ASN	214	45.300	12.284	85.251	1.00	61.56	AAAA C
ATOM	2064	O	ASN	214	45.198	11.794	84.117	1.00	58.38	AAAA O
ATOM	2058	CB	ASN	214	46.336	10.379	86.608	1.00	67.32	AAAA C
ATOM	2059	CG	ASN	214	47.697	10.896	86.362	1.00	75.48	AAAA C
ATOM	2060	OD1	ASN	214	48.254	11.105	85.302	1.00	83.64	AAAA O
ATOM	2061	ND2	ASN	214	48.513	11.170	87.427	1.00	90.05	AAAA N
ATOM	2065	N	ASP	215	45.666	13.565	85.305	1.00	59.78	AAAA N
ATOM	2067	CA	ASP	215	45.618	14.432	84.143	1.00	56.47	AAAA C
ATOM	2068	CB	ASP	215	45.430	15.926	84.446	1.00	40.19	AAAA C
ATOM	2069	CG	ASP	215	46.671	16.543	84.986	1.00	56.36	AAAA C
ATOM	2070	OD1	ASP	215	46.590	17.699	85.473	1.00	56.17	AAAA O

Figure 1A-19

ATOM	2071	OD2	ASP	215	47.766	15.926	84.941	1.00	60.11	AAAA O
ATOM	2072	C	ASP	215	46.819	14.315	83.221	1.00	53.78	AAAA C
ATOM	2073	O	ASP	215	46.990	15.148	82.322	1.00	53.58	AAAA O
ATOM	2074	N	THR	216	47.719	13.425	83.511	1.00	50.87	AAAA N
ATOM	2076	CA	THR	216	48.883	13.114	82.734	1.00	45.76	AAAA C
ATOM	2077	CB	THR	216	50.201	13.176	83.529	1.00	53.46	AAAA C
ATOM	2078	OG1	THR	216	50.403	11.977	84.335	1.00	45.14	AAAA O
ATOM	2080	CG2	THR	216	50.436	14.314	84.518	1.00	41.38	AAAA C
ATOM	2081	C	THR	216	48.681	11.712	82.159	1.00	48.34	AAAA C
ATOM	2082	O	THR	216	49.596	11.282	81.444	1.00	47.49	AAAA O
ATOM	2083	N	ALA	217	47.559	11.057	82.476	1.00	49.65	AAAA N
ATOM	2085	CA	ALA	217	47.259	9.760	81.945	1.00	51.83	AAAA C
ATOM	2086	CB	ALA	217	46.908	8.775	82.943	1.00	52.62	AAAA C
ATOM	2087	C	ALA	217	46.207	9.747	80.709	1.00	50.60	AAAA C
ATOM	2088	O	ALA	217	45.775	8.632	80.335	1.00	49.13	AAAA O
ATOM	2089	N	CYS	218	45.744	10.905	80.226	1.00	43.56	AAAA N
ATOM	2091	CA	CYS	218	44.802	11.030	79.157	1.00	48.09	AAAA C
ATOM	2092	C	CYS	218	45.166	10.331	77.869	1.00	47.06	AAAA C
ATOM	2093	O	CYS	218	46.306	9.907	77.642	1.00	55.57	AAAA O
ATOM	2094	CB	CYS	218	44.536	12.501	78.775	1.00	51.54	AAAA C
ATOM	2095	SG	CYS	218	44.256	13.494	80.302	1.00	56.98	AAAA S
ATOM	2096	N	VAL	219	44.226	10.085	76.978	1.00	43.40	AAAA N
ATOM	2098	CA	VAL	219	44.575	9.547	75.654	1.00	35.22	AAAA C
ATOM	2099	CB	VAL	219	43.693	8.427	75.242	1.00	32.26	AAAA C
ATOM	2100	CG1	VAL	219	43.952	7.873	73.886	1.00	36.19	AAAA C
ATOM	2101	CG2	VAL	219	43.811	7.144	76.071	1.00	45.51	AAAA C
ATOM	2102	C	VAL	219	44.453	10.750	74.735	1.00	32.06	AAAA C
ATOM	2103	O	VAL	219	45.303	10.897	73.874	1.00	42.27	AAAA O
ATOM	2104	N	ALA	220	43.729	11.753	75.187	1.00	24.24	AAAA N
ATOM	2106	CA	ALA	220	43.639	12.985	74.385	1.00	27.09	AAAA C
ATOM	2107	CB	ALA	220	42.536	12.919	73.331	1.00	28.42	AAAA C
ATOM	2108	C	ALA	220	43.292	14.071	75.390	1.00	29.21	AAAA C
ATOM	2109	O	ALA	220	42.846	13.604	76.455	1.00	37.88	AAAA O
ATOM	2110	N	CYS	221	43.285	15.334	75.058	1.00	30.27	AAAA N
ATOM	2112	CA	CYS	221	42.753	16.382	75.875	1.00	35.55	AAAA C
ATOM	2113	C	CYS	221	41.460	17.055	75.452	1.00	47.06	AAAA C
ATOM	2114	O	CYS	221	41.265	17.598	74.368	1.00	49.57	AAAA O
ATOM	2115	CB	CYS	221	43.804	17.478	76.063	1.00	47.45	AAAA C
ATOM	2116	SG	CYS	221	45.494	16.935	76.538	1.00	47.06	AAAA S
ATOM	2117	N	ARG	222	40.503	17.133	76.396	1.00	51.47	AAAA N
ATOM	2119	CA	ARG	222	39.291	17.906	76.338	1.00	51.86	AAAA C
ATOM	2120	CB	ARG	222	38.647	18.074	77.712	1.00	54.53	AAAA C
ATOM	2121	CG	ARG	222	37.314	18.687	77.854	1.00	45.56	AAAA C
ATOM	2122	CD	ARG	222	36.538	18.338	79.087	1.00	54.45	AAAA C
ATOM	2123	NE	ARG	222	36.272	16.947	79.269	1.00	65.53	AAAA N
ATOM	2125	CZ	ARG	222	35.534	16.080	78.617	1.00	67.60	AAAA C
ATOM	2126	NH1	ARG	222	34.925	16.599	77.533	1.00	70.26	AAAA N
ATOM	2129	NH2	ARG	222	35.342	14.780	78.901	1.00	54.11	AAAA N
ATOM	2132	C	ARG	222	39.562	19.286	75.740	1.00	50.66	AAAA C
ATOM	2133	O	ARG	222	38.737	19.845	75.009	1.00	58.34	AAAA O
ATOM	2134	N	HIS	223	40.556	19.981	76.190	1.00	45.65	AAAA N
ATOM	2136	CA	HIS	223	40.988	21.291	75.821	1.00	46.93	AAAA C
ATOM	2137	CB	HIS	223	41.067	22.251	77.011	1.00	49.51	AAAA C
ATOM	2138	CG	HIS	223	39.710	22.344	77.617	1.00	56.83	AAAA C
ATOM	2139	CD2	HIS	223	38.820	23.360	77.556	1.00	61.08	AAAA C
ATOM	2140	ND1	HIS	223	39.082	21.380	78.425	1.00	63.28	AAAA N
ATOM	2142	CE1	HIS	223	37.881	21.815	78.759	1.00	58.01	AAAA C
ATOM	2143	NE2	HIS	223	37.681	23.010	78.232	1.00	48.56	AAAA N
ATOM	2145	C	HIS	223	42.363	21.260	75.122	1.00	50.78	AAAA C
ATOM	2146	O	HIS	223	42.506	20.755	74.003	1.00	47.45	AAAA O
ATOM	2147	N	TYR	224	43.359	21.847	75.769	1.00	49.20	AAAA N
ATOM	2149	CA	TYR	224	44.712	21.992	75.259	1.00	48.17	AAAA C
ATOM	2150	CB	TYR	224	45.144	23.430	75.426	1.00	44.07	AAAA C
ATOM	2151	CG	TYR	224	44.318	24.234	74.417	1.00	51.77	AAAA C
ATOM	2152	CD1	TYR	224	43.193	24.869	74.904	1.00	48.94	AAAA C
ATOM	2153	CE1	TYR	224	42.401	25.633	74.089	1.00	48.41	AAAA C
ATOM	2154	CD2	TYR	224	44.623	24.358	73.065	1.00	54.82	AAAA C
ATOM	2155	CE2	TYR	224	43.847	25.131	72.233	1.00	56.09	AAAA C
ATOM	2156	CZ	TYR	224	42.739	25.745	72.766	1.00	54.23	AAAA C
ATOM	2157	OH	TYR	224	41.915	26.522	72.017	1.00	61.70	AAAA O
ATOM	2159	C	TYR	224	45.725	21.095	75.892	1.00	48.19	AAAA C
ATOM	2160	O	TYR	224	45.776	20.913	77.111	1.00	55.75	AAAA O
ATOM	2161	N	TYR	225	46.584	20.514	75.077	1.00	48.79	AAAA N
ATOM	2163	CA	TYR	225	47.655	19.653	75.555	1.00	43.02	AAAA C
ATOM	2164	CB	TYR	225	48.020	18.639	74.548	1.00	42.32	AAAA C
ATOM	2165	CG	TYR	225	49.286	17.926	74.954	1.00	46.95	AAAA C
ATOM	2166	CD1	TYR	225	49.299	16.858	75.817	1.00	43.57	AAAA C
ATOM	2167	CE1	TYR	225	50.450	16.221	76.173	1.00	47.26	AAAA C
ATOM	2168	CD2	TYR	225	50.487	18.407	74.421	1.00	52.82	AAAA C
ATOM	2169	CE2	TYR	225	51.656	17.791	74.781	1.00	53.94	AAAA C
ATOM	2170	CZ	TYR	225	51.639	16.707	75.644	1.00	52.31	AAAA C
ATOM	2171	OH	TYR	225	52.806	16.196	75.995	1.00	50.71	AAAA O
ATOM	2173	C	TYR	225	48.972	20.507	75.793	1.00	47.13	AAAA C
ATOM	2174	O	TYR	225	49.080	21.814	75.150	1.00	53.97	AAAA O
ATOM	2175	N	TYR	226	49.634	20.253	76.821	1.00	56.84	AAAA N

Figure 1A-20

ATOM	2177	CA	TYR	226	50.811	21.991	77.172	1.00	56.83	AAAA C
ATOM	2178	CB	TYR	226	50.455	22.343	77.785	1.00	59.51	AAAA C
ATOM	2179	CG	TYR	226	51.741	23.126	77.941	1.00	65.45	AAAA C
ATOM	2180	CD1	TYR	226	52.121	23.557	79.197	1.00	69.12	AAAA C
ATOM	2181	CE1	TYR	226	53.289	24.275	79.400	1.00	70.77	AAAA C
ATOM	2182	CD2	TYR	226	52.580	23.409	76.864	1.00	69.38	AAAA C
ATOM	2183	CE2	TYR	226	53.758	24.118	77.020	1.00	70.94	AAAA C
ATOM	2184	CZ	TYR	226	54.099	24.549	78.301	1.00	72.96	AAAA C
ATOM	2185	OH	TYR	226	55.267	25.254	78.435	1.00	70.84	AAAA O
ATOM	2187	C	TYR	226	51.784	20.356	79.165	1.00	57.55	AAAA C
ATOM	2188	O	TYR	226	51.492	20.133	79.350	1.00	56.90	AAAA O
ATOM	2189	N	ALA	227	52.978	20.080	77.642	1.00	53.82	AAAA N
ATOM	2191	CA	ALA	227	54.061	19.557	78.440	1.00	51.82	AAAA C
ATOM	2192	CB	ALA	227	54.528	20.620	79.428	1.00	55.81	AAAA C
ATOM	2193	C	ALA	227	53.600	18.309	79.170	1.00	53.56	AAAA C
ATOM	2194	O	ALA	227	53.663	18.218	80.413	1.00	49.63	AAAA O
ATOM	2195	N	GLY	228	53.076	17.360	78.393	1.00	50.68	AAAA N
ATOM	2197	CA	GLY	228	52.585	16.135	79.028	1.00	49.02	AAAA C
ATOM	2198	C	GLY	228	51.312	16.330	79.861	1.00	51.61	AAAA C
ATOM	2199	O	GLY	228	51.028	15.538	80.776	1.00	51.10	AAAA O
ATOM	2200	N	VAL	229	50.643	17.495	79.791	1.00	47.09	AAAA N
ATOM	2202	CA	VAL	229	49.489	17.671	80.635	1.00	51.11	AAAA C
ATOM	2203	CB	VAL	229	49.908	18.610	81.774	1.00	56.52	AAAA C
ATOM	2204	CG1	VAL	229	48.627	18.896	82.566	1.00	38.39	AAAA C
ATOM	2205	CG2	VAL	229	51.002	18.035	82.682	1.00	50.16	AAAA C
ATOM	2206	C	VAL	229	48.255	18.173	79.873	1.00	51.37	AAAA C
ATOM	2207	O	VAL	229	48.344	19.279	79.309	1.00	53.71	AAAA O
ATOM	2208	N	CYS	230	47.100	17.518	80.036	1.00	42.21	AAAA N
ATOM	2210	CA	CYS	230	45.891	18.117	79.471	1.00	40.32	AAAA C
ATOM	2211	C	CYS	230	45.456	19.350	80.229	1.00	38.42	AAAA C
ATOM	2212	O	CYS	230	44.964	19.248	81.321	1.00	41.62	AAAA O
ATOM	2213	CB	CYS	230	44.746	17.132	79.370	1.00	31.54	AAAA C
ATOM	2214	SG	CYS	230	45.149	15.753	78.266	1.00	43.61	AAAA S
ATOM	2215	N	VAL	231	45.637	20.534	79.731	1.00	39.83	AAAA N
ATOM	2217	CA	VAL	231	45.445	21.769	80.462	1.00	46.57	AAAA C
ATOM	2218	CB	VAL	231	46.618	22.736	80.088	1.00	50.99	AAAA C
ATOM	2219	CG1	VAL	231	46.798	23.878	81.053	1.00	50.41	AAAA C
ATOM	2220	CG2	VAL	231	47.838	21.913	80.506	1.00	44.95	AAAA C
ATOM	2221	C	VAL	231	44.111	22.321	80.057	1.00	52.59	AAAA C
ATOM	2222	O	VAL	231	43.599	22.183	78.936	1.00	55.30	AAAA O
ATOM	2223	N	PRO	232	43.482	23.105	80.913	1.00	54.28	AAAA N
ATOM	2224	CD	PRO	232	43.830	23.385	82.320	1.00	54.25	AAAA C
ATOM	2225	CA	PRO	232	42.153	23.625	80.575	1.00	54.39	AAAA C
ATOM	2226	CB	PRO	232	41.537	23.877	81.928	1.00	53.73	AAAA C
ATOM	2227	CG	PRO	232	42.683	24.287	82.765	1.00	55.00	AAAA C
ATOM	2228	C	PRO	232	42.361	24.913	79.795	1.00	56.37	AAAA C
ATOM	2229	O	PRO	232	41.498	25.482	79.137	1.00	55.79	AAAA O
ATOM	2230	N	ALA	233	43.615	25.400	79.901	1.00	54.76	AAAA N
ATOM	2232	CA	ALA	233	43.998	26.569	79.124	1.00	49.93	AAAA C
ATOM	2233	CB	ALA	233	43.440	27.807	79.746	1.00	35.43	AAAA C
ATOM	2234	C	ALA	233	45.502	26.662	78.974	1.00	49.79	AAAA C
ATOM	2235	O	ALA	233	46.195	25.879	79.616	1.00	51.41	AAAA O
ATOM	2236	N	CYS	234	45.984	27.508	78.072	1.00	45.07	AAAA N
ATOM	2238	CA	CYS	234	47.430	27.518	77.907	1.00	48.63	AAAA C
ATOM	2239	C	CYS	234	48.001	28.340	79.076	1.00	50.93	AAAA C
ATOM	2240	O	CYS	234	47.650	29.513	79.250	1.00	47.57	AAAA O
ATOM	2241	CB	CYS	234	47.816	28.034	76.511	1.00	43.10	AAAA C
ATOM	2242	SG	CYS	234	47.608	26.789	75.226	1.00	43.04	AAAA S
ATOM	2243	N	PRO	235	49.127	27.853	79.599	1.00	49.55	AAAA N
ATOM	2244	CD	PRO	235	49.692	26.557	79.207	1.00	48.75	AAAA C
ATOM	2245	CA	PRO	235	49.911	28.569	80.599	1.00	51.69	AAAA C
ATOM	2246	CB	PRO	235	50.984	27.581	80.975	1.00	50.80	AAAA C
ATOM	2247	CG	PRO	235	50.912	26.417	80.077	1.00	50.06	AAAA C
ATOM	2248	C	PRO	235	50.487	29.852	80.050	1.00	57.11	AAAA C
ATOM	2249	O	PRO	235	50.848	29.957	78.870	1.00	59.60	AAAA O
ATOM	2250	N	PRO	236	50.676	30.875	80.887	1.00	59.85	AAAA N
ATOM	2251	CD	PRO	236	50.405	30.822	82.363	1.00	55.85	AAAA C
ATOM	2252	CA	PRO	236	51.323	32.143	80.493	1.00	52.27	AAAA C
ATOM	2253	CB	PRO	236	51.695	32.814	81.826	1.00	53.62	AAAA C
ATOM	2254	CG	PRO	236	50.652	32.277	82.751	1.00	56.73	AAAA C
ATOM	2255	C	PRO	236	52.545	31.886	79.671	1.00	44.21	AAAA C
ATOM	2256	O	PRO	236	53.219	30.892	79.928	1.00	43.40	AAAA O
ATOM	2257	N	ASN	237	52.837	32.757	78.716	1.00	46.54	AAAA N
ATOM	2259	CA	ASN	237	53.895	32.623	77.716	1.00	45.94	AAAA C
ATOM	2260	CB	ASN	237	55.259	32.653	78.456	1.00	58.65	AAAA C
ATOM	2261	CG	ASN	237	55.357	33.855	79.371	1.00	58.51	AAAA C
ATOM	2262	OD1	ASN	237	56.044	33.783	80.379	1.00	72.25	AAAA O
ATOM	2263	ND2	ASN	237	54.631	34.910	79.051	1.00	62.99	AAAA N
ATOM	2266	C	ASN	237	53.897	31.425	76.788	1.00	46.87	AAAA C
ATOM	2267	O	ASN	237	54.962	30.935	76.326	1.00	54.50	AAAA O
ATOM	2268	N	THR	238	52.817	30.657	76.692	1.00	42.91	AAAA N
ATOM	2270	CA	THR	238	52.617	29.567	75.790	1.00	40.20	AAAA C
ATOM	2271	CB	THR	238	52.461	28.248	76.466	1.00	42.62	AAAA C
ATOM	2272	OG1	THR	238	51.227	28.343	77.237	1.00	50.88	AAAA O
ATOM	2274	CG2	THR	238	53.552	27.986	77.424	1.00	34.84	AAAA C

Figure 1A-21

ATOM	2275	C	THR	238	51.279	29.875	75.078	1.00	42.59	AAAA C
ATOM	2276	O	THR	238	50.669	30.864	75.509	1.00	42.51	AAAA O
ATOM	2277	N	TYR	239	51.051	29.488	73.832	1.00	42.62	AAAA N
ATOM	2279	CA	TYR	239	49.949	29.959	73.024	1.00	41.97	AAAA C
ATOM	2280	CB	TYR	239	50.457	30.907	71.931	1.00	44.86	AAAA C
ATOM	2281	CG	TYR	239	51.099	32.125	72.564	1.00	42.05	AAAA C
ATOM	2282	CD1	TYR	239	52.467	32.086	72.815	1.00	39.41	AAAA C
ATOM	2283	CE1	TYR	239	53.092	33.152	73.415	1.00	43.27	AAAA C
ATOM	2284	CD2	TYR	239	50.376	33.230	72.923	1.00	44.15	AAAA C
ATOM	2285	CE2	TYR	239	50.972	34.310	73.536	1.00	46.22	AAAA C
ATOM	2286	CZ	TYR	239	52.339	34.243	73.779	1.00	50.42	AAAA C
ATOM	2287	OH	TYR	239	53.013	35.289	74.387	1.00	55.47	AAAA O
ATOM	2289	C	TYR	239	49.232	28.813	72.315	1.00	45.54	AAAA C
ATOM	2290	O	TYR	239	49.922	27.810	72.021	1.00	46.66	AAAA O
ATOM	2291	N	ARG	240	47.895	28.990	72.126	1.00	40.62	AAAA N
ATOM	2293	CA	ARG	240	47.177	27.892	71.426	1.00	38.78	AAAA C
ATOM	2294	CB	ARG	240	45.675	28.127	71.452	1.00	39.77	AAAA C
ATOM	2295	CG	ARG	240	45.116	28.944	72.588	1.00	43.37	AAAA C
ATOM	2296	CD	ARG	240	43.573	28.957	72.683	1.00	38.60	AAAA C
ATOM	2297	NE	ARG	240	43.114	29.683	71.455	1.00	53.95	AAAA N
ATOM	2299	CZ	ARG	240	43.123	31.015	71.530	1.00	48.07	AAAA C
ATOM	2300	NH1	ARG	240	43.513	31.562	72.668	1.00	47.65	AAAA N
ATOM	2303	NH2	ARG	240	42.788	31.778	70.533	1.00	51.03	AAAA N
ATOM	2306	C	ARG	240	47.627	27.737	69.979	1.00	31.72	AAAA C
ATOM	2307	O	ARG	240	47.937	28.730	69.302	1.00	32.37	AAAA O
ATOM	2308	N	PHE	241	47.779	26.542	69.549	1.00	27.95	AAAA N
ATOM	2310	CA	PHE	241	48.182	26.269	68.183	1.00	30.41	AAAA C
ATOM	2311	CB	PHE	241	49.678	25.940	68.151	1.00	34.83	AAAA C
ATOM	2312	CG	PHE	241	50.235	25.653	66.773	1.00	26.84	AAAA C
ATOM	2313	CD1	PHE	241	50.165	26.567	65.753	1.00	25.31	AAAA C
ATOM	2314	CD2	PHE	241	50.785	24.417	66.573	1.00	27.38	AAAA C
ATOM	2315	CE1	PHE	241	50.676	26.232	64.509	1.00	37.24	AAAA C
ATOM	2316	CE2	PHE	241	51.294	24.101	65.320	1.00	38.45	AAAA C
ATOM	2317	CZ	PHE	241	51.281	25.010	64.281	1.00	21.17	AAAA C
ATOM	2318	C	PHE	241	47.382	25.089	67.621	1.00	35.77	AAAA C
ATOM	2319	O	PHE	241	47.543	24.013	68.186	1.00	36.77	AAAA O
ATOM	2320	N	GLU	242	46.738	25.301	66.468	1.00	32.30	AAAA N
ATOM	2322	CA	GLU	242	45.964	24.269	65.805	1.00	35.43	AAAA C
ATOM	2323	CB	GLU	242	46.953	23.144	65.472	1.00	37.98	AAAA C
ATOM	2324	CG	GLU	242	47.867	23.415	64.314	1.00	38.63	AAAA C
ATOM	2325	CD	GLU	242	47.207	23.965	63.075	1.00	39.27	AAAA C
ATOM	2326	OE1	GLU	242	46.380	23.205	62.517	1.00	42.79	AAAA O
ATOM	2327	OE2	GLU	242	47.354	25.109	62.626	1.00	36.36	AAAA O
ATOM	2328	C	GLU	242	44.752	23.771	66.600	1.00	34.36	AAAA C
ATOM	2329	O	GLU	242	44.390	22.611	66.511	1.00	28.53	AAAA O
ATOM	2330	N	GLY	243	44.135	24.589	67.449	1.00	36.94	AAAA N
ATOM	2332	CA	GLY	243	43.048	24.154	68.303	1.00	34.57	AAAA C
ATOM	2333	C	GLY	243	43.428	23.107	69.319	1.00	37.76	AAAA C
ATOM	2334	O	GLY	243	42.474	22.473	69.746	1.00	43.00	AAAA O
ATOM	2335	N	TRP	244	44.637	22.636	69.611	1.00	39.53	AAAA N
ATOM	2337	CA	TRP	244	44.797	21.536	70.566	1.00	40.85	AAAA C
ATOM	2338	CB	TRP	244	44.774	20.271	69.764	1.00	26.76	AAAA C
ATOM	2339	CG	TRP	244	46.012	19.885	69.029	1.00	43.19	AAAA C
ATOM	2340	CD2	TRP	244	47.019	18.983	69.498	1.00	39.55	AAAA C
ATOM	2341	CE2	TRP	244	47.998	19.906	68.489	1.00	36.50	AAAA C
ATOM	2342	CE3	TRP	244	47.186	18.254	70.692	1.00	32.18	AAAA C
ATOM	2343	CD1	TRP	244	46.424	20.308	67.779	1.00	43.37	AAAA C
ATOM	2344	NE1	TRP	244	47.595	19.727	67.469	1.00	38.89	AAAA N
ATOM	2346	CZ2	TRP	244	49.150	18.128	68.620	1.00	39.01	AAAA C
ATOM	2347	CZ3	TRP	244	48.336	17.478	70.815	1.00	43.98	AAAA C
ATOM	2348	CH2	TRP	244	49.322	17.425	69.784	1.00	42.50	AAAA C
ATOM	2349	C	TRP	244	45.998	21.517	71.509	1.00	42.98	AAAA C
ATOM	2350	O	TRP	244	46.283	20.501	72.146	1.00	42.70	AAAA O
ATOM	2351	N	ARG	245	46.888	22.485	71.435	1.00	44.16	AAAA N
ATOM	2353	CA	ARG	245	48.168	22.472	72.095	1.00	46.47	AAAA C
ATOM	2354	CB	ARG	245	49.203	21.602	71.367	1.00	47.30	AAAA C
ATOM	2355	CG	ARG	245	49.985	22.309	70.203	1.00	48.97	AAAA C
ATOM	2356	CD	ARG	245	51.129	21.552	69.819	1.00	39.29	AAAA C
ATOM	2357	NE	ARG	245	51.586	21.665	68.444	1.00	50.86	AAAA N
ATOM	2359	CZ	ARG	245	52.629	21.044	67.895	1.00	46.73	AAAA C
ATOM	2360	NH1	ARG	245	53.344	20.236	68.653	1.00	50.15	AAAA N
ATOM	2363	NH2	ARG	245	53.072	21.126	66.638	1.00	41.69	AAAA N
ATOM	2366	C	ARG	245	48.771	23.863	72.271	1.00	46.01	AAAA C
ATOM	2367	O	ARG	245	48.394	24.793	71.541	1.00	47.44	AAAA O
ATOM	2368	N	CYS	246	49.625	23.881	73.317	1.00	42.08	AAAA N
ATOM	2370	CA	CYS	246	50.246	25.199	73.628	1.00	43.48	AAAA C
ATOM	2371	C	CYS	246	51.695	25.217	73.183	1.00	43.38	AAAA C
ATOM	2372	O	CYS	246	52.476	24.239	73.320	1.00	42.51	AAAA O
ATOM	2373	CB	CYS	246	50.102	25.392	75.138	1.00	48.91	AAAA C
ATOM	2374	SG	CYS	246	48.386	25.049	75.797	1.00	43.68	AAAA S
ATOM	2375	N	VAL	247	52.121	26.288	72.564	1.00	41.21	AAAA N
ATOM	2377	CA	VAL	247	53.417	26.468	71.982	1.00	36.51	AAAA C
ATOM	2378	CB	VAL	247	53.569	26.357	70.444	1.00	36.87	AAAA C
ATOM	2379	CG1	VAL	247	53.089	24.988	70.024	1.00	32.71	AAAA C
ATOM	2380	CG2	VAL	247	53.129	27.602	69.729	1.00	28.20	AAAA C

Figure 1A-22

ATOM	2381	C	VAL	247	53.969	27.812	72.[illegible]	1.00	39.37	AAAA C
ATOM	2382	O	VAL	247	53.230	28.770	72.549	1.00	38.80	AAAA O
ATOM	2383	N	ASP	248	55.291	27.820	72.711	1.00	45.21	AAAA N
ATOM	2385	CA	ASP	248	55.895	29.115	73.098	1.00	40.19	AAAA C
ATOM	2386	CB	ASP	248	57.091	28.946	73.953	1.00	42.63	AAAA C
ATOM	2387	CG	ASP	248	58.126	27.997	73.394	1.00	58.81	AAAA C
ATOM	2388	OD1	ASP	248	59.067	27.795	74.187	1.00	53.06	AAAA O
ATOM	2389	OD2	ASP	248	58.167	27.395	72.313	1.00	69.51	AAAA O
ATOM	2390	C	ASP	248	56.315	29.883	71.839	1.00	36.99	AAAA C
ATOM	2391	O	ASP	248	56.292	29.288	70.772	1.00	39.70	AAAA O
ATOM	2392	N	ARG	249	56.545	31.163	71.918	1.00	30.72	AAAA N
ATOM	2394	CA	ARG	249	56.950	32.057	70.906	1.00	36.17	AAAA C
ATOM	2395	CB	ARG	249	57.223	33.495	71.491	1.00	21.29	AAAA C
ATOM	2396	CG	ARG	249	57.594	34.424	70.326	1.00	24.96	AAAA C
ATOM	2397	CD	ARG	249	57.814	35.811	70.843	1.00	21.23	AAAA C
ATOM	2398	NE	ARG	249	56.658	36.150	71.689	1.00	39.75	AAAA N
ATOM	2400	CZ	ARG	249	55.632	36.823	71.101	1.00	39.35	AAAA C
ATOM	2401	NH1	ARG	249	55.642	37.118	69.801	1.00	25.41	AAAA N
ATOM	2404	NH2	ARG	249	54.641	37.118	71.946	1.00	44.94	AAAA N
ATOM	2407	C	ARG	249	58.134	31.685	70.010	1.00	40.63	AAAA C
ATOM	2408	O	ARG	249	58.086	31.923	68.797	1.00	44.79	AAAA O
ATOM	2409	N	ASP	250	59.149	30.974	70.468	1.00	41.87	AAAA N
ATOM	2411	CA	ASP	250	60.287	30.739	69.606	1.00	46.90	AAAA C
ATOM	2412	CB	ASP	250	61.740	30.726	70.154	1.00	53.11	AAAA C
ATOM	2413	CG	ASP	250	62.421	32.122	70.081	1.00	71.49	AAAA C
ATOM	2414	OD1	ASP	250	63.124	32.682	69.176	1.00	58.53	AAAA O
ATOM	2415	OD2	ASP	250	62.272	32.928	71.071	1.00	70.30	AAAA O
ATOM	2416	C	ASP	250	59.881	29.536	68.771	1.00	41.22	AAAA C
ATOM	2417	O	ASP	250	60.291	29.443	67.616	1.00	39.06	AAAA O
ATOM	2418	N	PHE	251	59.116	29.609	69.299	1.00	36.13	AAAA N
ATOM	2420	CA	PHE	251	58.457	27.601	68.489	1.00	34.88	AAAA C
ATOM	2421	CB	PHE	251	57.468	26.746	69.256	1.00	29.82	AAAA C
ATOM	2422	CG	PHE	251	56.701	25.801	68.385	1.00	41.59	AAAA C
ATOM	2423	CD1	PHE	251	57.101	24.479	68.263	1.00	30.66	AAAA C
ATOM	2424	CD2	PHE	251	55.559	26.213	67.686	1.00	37.78	AAAA C
ATOM	2425	CE1	PHE	251	56.414	23.597	67.424	1.00	29.30	AAAA C
ATOM	2426	CE2	PHE	251	54.847	25.372	66.856	1.00	36.09	AAAA C
ATOM	2427	CZ	PHE	251	55.294	24.070	66.715	1.00	36.21	AAAA C
ATOM	2428	C	PHE	251	57.624	28.290	67.338	1.00	39.28	AAAA C
ATOM	2429	O	PHE	251	57.811	28.010	66.144	1.00	30.27	AAAA O
ATOM	2430	N	CYS	252	56.734	29.225	67.713	1.00	35.13	AAAA N
ATOM	2432	CA	CYS	252	55.895	29.870	66.728	1.00	38.80	AAAA C
ATOM	2433	C	CYS	252	56.827	30.598	65.747	1.00	44.73	AAAA C
ATOM	2434	O	CYS	252	56.552	30.534	64.536	1.00	43.20	AAAA O
ATOM	2435	CB	CYS	252	54.903	30.778	67.379	1.00	35.65	AAAA C
ATOM	2436	SG	CYS	252	53.562	31.544	66.459	1.00	39.03	AAAA S
ATOM	2437	N	ALA	253	57.872	31.256	66.285	1.00	41.53	AAAA N
ATOM	2439	CA	ALA	253	58.687	32.071	65.415	1.00	40.39	AAAA C
ATOM	2440	CB	ALA	253	59.529	33.088	66.172	1.00	36.07	AAAA C
ATOM	2441	C	ALA	253	59.551	31.167	64.539	1.00	42.88	AAAA C
ATOM	2442	O	ALA	253	60.147	31.735	63.640	1.00	47.42	AAAA O
ATOM	2443	N	ASN	254	59.657	29.859	64.700	1.00	38.75	AAAA N
ATOM	2445	CA	ASN	254	60.546	29.073	63.928	1.00	42.94	AAAA C
ATOM	2446	CB	ASN	254	61.667	28.497	64.847	1.00	48.09	AAAA C
ATOM	2447	CG	ASN	254	62.696	29.635	65.031	1.00	49.94	AAAA C
ATOM	2448	OD1	ASN	254	63.468	29.840	64.081	1.00	61.38	AAAA O
ATOM	2449	ND2	ASN	254	62.607	30.321	66.144	1.00	48.38	AAAA N
ATOM	2452	C	ASN	254	59.907	27.959	63.135	1.00	53.72	AAAA C
ATOM	2453	O	ASN	254	60.552	26.965	62.804	1.00	51.19	AAAA O
ATOM	2454	N	ILE	255	58.612	28.136	62.766	1.00	57.77	AAAA N
ATOM	2456	CA	ILE	255	57.828	27.107	62.134	1.00	53.29	AAAA C
ATOM	2457	CB	ILE	255	56.329	27.322	62.304	1.00	50.41	AAAA C
ATOM	2458	CG2	ILE	255	55.477	26.595	61.246	1.00	51.95	AAAA C
ATOM	2459	CG1	ILE	255	55.778	26.675	63.553	1.00	40.59	AAAA C
ATOM	2460	CD1	ILE	255	54.479	27.317	64.006	1.00	38.97	AAAA C
ATOM	2461	C	ILE	255	58.127	26.886	60.651	1.00	52.62	AAAA C
ATOM	2462	O	ILE	255	58.196	25.709	60.252	1.00	53.96	AAAA O
ATOM	2463	N	LEU	256	58.290	27.960	59.910	1.00	49.96	AAAA N
ATOM	2465	CA	LEU	256	58.680	27.764	58.516	1.00	63.68	AAAA C
ATOM	2466	CB	LEU	256	58.175	29.012	57.799	1.00	56.80	AAAA C
ATOM	2467	CG	LEU	256	56.671	29.196	57.864	1.00	59.11	AAAA C
ATOM	2468	CD1	LEU	256	56.310	30.654	57.645	1.00	43.31	AAAA C
ATOM	2469	CD2	LEU	256	55.965	28.222	56.928	1.00	55.88	AAAA C
ATOM	2470	C	LEU	256	60.193	27.622	58.355	1.00	66.23	AAAA C
ATOM	2471	O	LEU	256	60.691	27.511	57.245	1.00	70.29	AAAA O
ATOM	2472	N	SER	257	60.942	27.559	59.430	1.00	64.61	AAAA N
ATOM	2474	CA	SER	257	62.352	27.529	59.534	1.00	69.23	AAAA C
ATOM	2475	CB	SER	257	62.924	27.318	60.955	1.00	62.45	AAAA C
ATOM	2476	OG	SER	257	63.381	25.980	61.074	1.00	56.18	AAAA O
ATOM	2478	C	SER	257	62.973	26.497	58.610	1.00	70.77	AAAA C
ATOM	2479	O	SER	257	64.127	26.731	58.245	1.00	72.50	AAAA O
ATOM	2480	N	ALA	258	62.322	25.399	58.329	1.00	74.61	AAAA N
ATOM	2482	CA	ALA	258	62.933	24.488	57.313	1.00	76.34	AAAA C
ATOM	2483	CB	ALA	258	62.570	23.039	57.584	1.00	80.82	AAAA C
ATOM	2484	C	ALA	258	62.663	24.964	55.921	1.00	78.21	AAAA C

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ATOM	2485	O	ALA	259	62.980	24.139	55.020	1.00	79.69	AAAA O
ATOM	2486	N	GLU	259	62.069	26.109	55.651	1.00	79.05	AAAA N
ATOM	2487	CA	GLU	259	61.742	26.621	54.349	1.00	83.84	AAAA C
ATOM	2488	CB	GLU	259	60.229	26.457	54.135	1.00	86.99	AAAA C
ATOM	2489	CG	GLU	259	59.687	25.049	54.314	1.00	99.38	AAAA C
ATOM	2490	CD	GLU	259	58.364	25.032	55.057	1.00	97.77	AAAA C
ATOM	2491	OE1	GLU	259	58.080	24.088	55.839	1.00	101.45	AAAA O
ATOM	2492	OE2	GLU	259	57.599	26.002	54.837	1.00	94.58	AAAA O
ATOM	2494	C	GLU	259	62.117	28.078	54.083	1.00	85.43	AAAA C
ATOM	2495	O	GLU	259	62.059	29.009	54.903	1.00	88.01	AAAA O
ATOM	2496	N	SER	260	62.298	28.338	52.799	1.00	84.66	AAAA N
ATOM	2498	CA	SER	260	62.725	29.625	52.254	1.00	84.03	AAAA C
ATOM	2499	CB	SER	260	63.753	29.269	51.173	1.00	87.24	AAAA C
ATOM	2500	OG	SER	260	63.306	29.419	49.835	1.00	93.65	AAAA O
ATOM	2502	C	SER	260	61.558	30.466	51.799	1.00	80.84	AAAA C
ATOM	2503	O	SER	260	61.496	30.889	50.635	1.00	81.31	AAAA O
ATOM	2504	N	SER	261	60.617	30.785	52.685	1.00	78.56	AAAA N
ATOM	2506	CA	SER	261	59.423	31.540	52.300	1.00	72.13	AAAA C
ATOM	2507	CB	SER	261	58.179	31.297	53.179	1.00	67.30	AAAA C
ATOM	2508	OG	SER	261	57.436	30.334	52.451	1.00	74.74	AAAA O
ATOM	2510	C	SER	261	59.683	33.032	52.318	1.00	66.90	AAAA C
ATOM	2511	O	SER	261	60.048	33.588	53.334	1.00	63.24	AAAA O
ATOM	2512	N	ASP	262	59.364	33.659	51.204	1.00	65.30	AAAA N
ATOM	2514	CA	ASP	262	59.358	35.071	50.915	1.00	58.55	AAAA C
ATOM	2515	CB	ASP	262	59.268	35.285	49.400	1.00	64.85	AAAA C
ATOM	2516	CG	ASP	262	59.389	36.713	48.931	1.00	76.42	AAAA C
ATOM	2517	OD1	ASP	262	59.473	37.708	49.701	1.00	79.81	AAAA O
ATOM	2518	OD2	ASP	262	59.404	36.873	47.671	1.00	80.46	AAAA O
ATOM	2519	C	ASP	262	58.121	35.706	51.529	1.00	56.88	AAAA C
ATOM	2520	O	ASP	262	57.851	36.918	51.519	1.00	52.48	AAAA O
ATOM	2521	N	SER	263	57.259	34.849	52.119	1.00	53.43	AAAA N
ATOM	2523	CA	SER	263	56.047	35.352	52.734	1.00	52.84	AAAA C
ATOM	2524	CB	SER	263	55.020	34.245	52.885	1.00	46.60	AAAA C
ATOM	2525	OG	SER	263	55.149	33.348	51.791	1.00	66.80	AAAA O
ATOM	2527	C	SER	263	56.310	35.965	54.117	1.00	49.52	AAAA C
ATOM	2528	O	SER	263	57.396	35.737	54.709	1.00	42.33	AAAA O
ATOM	2529	N	GLU	264	55.320	36.783	54.540	1.00	38.93	AAAA N
ATOM	2531	CA	GLU	264	55.362	37.222	55.921	1.00	36.70	AAAA C
ATOM	2532	CB	GLU	264	54.359	38.337	56.208	1.00	43.71	AAAA C
ATOM	2533	CG	GLU	264	54.575	39.482	55.219	1.00	37.74	AAAA C
ATOM	2534	CD	GLU	264	55.374	40.632	55.793	1.00	34.36	AAAA C
ATOM	2535	OE1	GLU	264	55.493	40.600	57.034	1.00	41.55	AAAA O
ATOM	2536	OE2	GLU	264	55.832	41.576	55.146	1.00	39.60	AAAA O
ATOM	2537	C	GLU	264	55.098	36.056	56.827	1.00	35.84	AAAA C
ATOM	2538	O	GLU	264	54.368	35.151	56.355	1.00	39.60	AAAA O
ATOM	2539	N	GLY	265	55.801	35.938	57.962	1.00	35.64	AAAA N
ATOM	2541	CA	GLY	265	55.671	34.690	58.727	1.00	40.30	AAAA C
ATOM	2542	C	GLY	265	54.622	34.716	59.829	1.00	39.51	AAAA C
ATOM	2543	O	GLY	265	53.951	35.699	60.135	1.00	37.20	AAAA O
ATOM	2544	N	PHE	266	54.537	33.569	60.516	1.00	35.75	AAAA N
ATOM	2546	CA	PHE	266	53.637	33.434	61.625	1.00	33.70	AAAA C
ATOM	2547	CB	PHE	266	53.921	32.155	62.396	1.00	28.20	AAAA C
ATOM	2548	CG	PHE	266	53.356	30.958	61.671	1.00	37.07	AAAA C
ATOM	2549	CD1	PHE	266	53.760	30.618	60.377	1.00	34.72	AAAA C
ATOM	2550	CD2	PHE	266	52.383	30.195	62.313	1.00	25.65	AAAA C
ATOM	2551	CE1	PHE	266	53.225	29.506	59.760	1.00	37.72	AAAA C
ATOM	2552	CE2	PHE	266	51.879	29.094	61.672	1.00	24.63	AAAA C
ATOM	2553	CZ	PHE	266	52.260	28.708	60.402	1.00	23.58	AAAA C
ATOM	2554	C	PHE	266	53.571	34.570	62.608	1.00	35.82	AAAA C
ATOM	2555	O	PHE	266	54.446	35.372	62.979	1.00	39.23	AAAA O
ATOM	2556	N	VAL	267	52.360	34.763	63.161	1.00	37.10	AAAA N
ATOM	2558	CA	VAL	267	52.118	35.812	64.113	1.00	36.09	AAAA C
ATOM	2559	CB	VAL	267	51.315	36.974	63.567	1.00	39.01	AAAA C
ATOM	2560	CG1	VAL	267	51.626	37.601	62.220	1.00	31.16	AAAA C
ATOM	2561	CG2	VAL	267	49.990	36.490	63.570	1.00	36.88	AAAA C
ATOM	2562	C	VAL	267	51.506	35.260	65.490	1.00	33.55	AAAA C
ATOM	2563	O	VAL	267	51.202	34.098	65.515	1.00	32.41	AAAA O
ATOM	2564	N	ILE	268	51.539	36.088	66.477	1.00	35.98	AAAA N
ATOM	2566	CA	ILE	268	50.867	35.573	67.681	1.00	39.79	AAAA C
ATOM	2567	CB	ILE	268	51.791	35.232	68.849	1.00	31.17	AAAA C
ATOM	2568	CG2	ILE	268	50.922	35.253	70.150	1.00	32.66	AAAA C
ATOM	2569	CG1	ILE	268	52.403	33.866	68.724	1.00	23.56	AAAA C
ATOM	2570	CD1	ILE	268	53.421	33.546	69.806	1.00	25.93	AAAA C
ATOM	2571	C	ILE	268	49.806	36.608	68.060	1.00	42.44	AAAA C
ATOM	2572	O	ILE	268	50.116	37.767	68.327	1.00	39.99	AAAA O
ATOM	2573	N	HIS	269	48.528	36.292	67.864	1.00	44.26	AAAA N
ATOM	2575	CA	HIS	269	47.491	37.320	68.175	1.00	44.28	AAAA C
ATOM	2576	CB	HIS	269	46.885	37.876	66.901	1.00	45.48	AAAA C
ATOM	2577	CG	HIS	269	45.915	38.986	67.079	1.00	54.33	AAAA C
ATOM	2578	CD2	HIS	269	44.551	39.014	67.096	1.00	46.61	AAAA C
ATOM	2579	ND1	HIS	269	46.356	40.290	67.307	1.00	51.86	AAAA N
ATOM	2581	CE1	HIS	269	45.282	41.057	67.437	1.00	55.17	AAAA C
ATOM	2582	NE2	HIS	269	44.175	40.324	67.309	1.00	46.97	AAAA N
ATOM	2584	C	HIS	269	48.423	36.740	69.074	1.00	45.54	AAAA C
ATOM	2585	O	HIS	269	46.076	35.952	68.127	1.00	42.94	AAAA O

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ATOM  2596  H   ASP  270      45.952  37.526  70.059  1.00 40.82      AAAA H
ATOM  2588  CA  ASP  270      44.948  37.625  71.001  1.00 48.03      AAAA C
ATOM  2589  CB  ASP  270      43.573  37.014  70.339  1.00 63.63      AAAA C
ATOM  2590  CG  ASP  270      42.919  38.393  70.294  1.00 80.82      AAAA C
ATOM  2591  OD1 ASP  270      41.737  38.379  69.835  1.00 90.92      AAAA O
ATOM  2592  OD2 ASP  270      43.467  39.494  70.652  1.00 86.49      AAAA O
ATOM  2593  C   ASP  270      45.226  35.667  71.594  1.00 44.66      AAAA C
ATOM  2594  O   ASP  270      44.357  34.782  71.576  1.00 45.94      AAAA O
ATOM  2595  H   GLY  271      46.477  35.379  71.924  1.00 41.63      AAAA H
ATOM  2597  CA  GLY  271      46.839  34.117  72.506  1.00 37.20      AAAA C
ATOM  2598  C   GLY  271      46.819  32.998  71.537  1.00 39.15      AAAA C
ATOM  2599  O   GLY  271      46.775  31.865  72.039  1.00 46.56      AAAA O
ATOM  2600  H   GLU  272      47.615  33.292  70.251  1.00 41.49      AAAA H
ATOM  2602  CA  GLU  272      47.109  32.092  69.371  1.00 45.56      AAAA C
ATOM  2603  CB  GLU  272      45.752  31.737  68.876  1.00 37.58      AAAA C
ATOM  2604  CG  GLU  272      45.779  30.600  67.839  1.00 45.30      AAAA C
ATOM  2605  CD  GLU  272      44.413  30.528  67.149  1.00 36.92      AAAA C
ATOM  2606  OE1 GLU  272      43.515  31.345  67.533  1.00 48.41      AAAA O
ATOM  2607  OE2 GLU  272      44.223  29.696  66.206  1.00 44.19      AAAA O
ATOM  2608  C   GLU  272      48.211  32.324  68.335  1.00 40.32      AAAA C
ATOM  2609  O   GLU  272      48.445  33.447  67.896  1.00 37.04      AAAA O
ATOM  2610  H   CYS  273      48.942  31.237  68.138  1.00 38.83      AAAA H
ATOM  2612  CA  CYS  273      50.046  31.187  67.108  1.00 40.27      AAAA C
ATOM  2613  C   CYS  273      49.321  30.810  65.883  1.00 42.16      AAAA C
ATOM  2614  O   CYS  273      48.713  29.712  65.831  1.00 40.86      AAAA O
ATOM  2615  CB  CYS  273      51.098  30.148  67.529  1.00 40.21      AAAA C
ATOM  2616  SG  CYS  273      52.337  29.825  66.260  1.00 39.79      AAAA S
ATOM  2617  H   MET  274      49.373  31.749  64.933  1.00 33.70      AAAA H
ATOM  2619  CA  MET  274      48.586  31.351  63.720  1.00 36.68      AAAA C
ATOM  2620  CB  MET  274      47.136  31.861  63.847  1.00 29.11      AAAA C
ATOM  2621  CG  MET  274      46.923  33.379  63.691  1.00 36.51      AAAA C
ATOM  2622  SD  MET  274      45.477  33.921  64.677  1.00 40.00      AAAA S
ATOM  2623  CE  MET  274      45.659  35.658  64.754  1.00 22.47      AAAA C
ATOM  2624  C   MET  274      49.426  31.900  62.608  1.00 39.35      AAAA C
ATOM  2625  O   MET  274      50.167  32.880  62.672  1.00 41.00      AAAA O
ATOM  2626  H   GLN  275      49.378  31.353  61.428  1.00 42.55      AAAA H
ATOM  2628  CA  GLN  275      50.041  31.834  60.232  1.00 37.69      AAAA C
ATOM  2629  CB  GLN  275      49.618  30.765  59.242  1.00 34.01      AAAA C
ATOM  2630  CG  GLN  275      49.329  31.274  57.864  1.00 56.40      AAAA C
ATOM  2631  CD  GLN  275      49.275  30.190  56.812  1.00 66.46      AAAA C
ATOM  2632  OE1 GLN  275      49.941  29.151  56.910  1.00 67.24      AAAA O
ATOM  2633  NE2 GLN  275      48.451  30.436  55.799  1.00 78.29      AAAA N
ATOM  2636  C   GLN  275      49.721  33.195  59.720  1.00 35.41      AAAA C
ATOM  2637  O   GLN  275      50.526  33.831  59.064  1.00 35.95      AAAA O
ATOM  2638  H   GLU  276      48.566  33.754  60.056  1.00 41.70      AAAA H
ATOM  2640  CA  GLU  276      48.222  35.080  59.571  1.00 43.96      AAAA C
ATOM  2641  CB  GLU  276      47.387  34.884  58.245  1.00 42.40      AAAA C
ATOM  2642  CG  GLU  276      47.154  36.269  57.650  1.00 53.84      AAAA C
ATOM  2643  CD  GLU  276      48.359  37.198  57.460  1.00 61.37      AAAA C
ATOM  2644  OE1 GLU  276      49.356  36.595  56.943  1.00 67.32      AAAA O
ATOM  2645  OE2 GLU  276      48.242  38.411  57.811  1.00 45.10      AAAA O
ATOM  2646  C   GLU  276      47.444  35.935  60.540  1.00 39.74      AAAA C
ATOM  2647  O   GLU  276      46.760  35.449  61.444  1.00 45.06      AAAA O
ATOM  2648  H   CYS  277      47.495  37.235  60.500  1.00 38.69      AAAA H
ATOM  2650  CA  CYS  277      46.718  38.089  61.332  1.00 46.11      AAAA C
ATOM  2651  C   CYS  277      45.205  37.938  60.994  1.00 52.70      AAAA C
ATOM  2652  O   CYS  277      44.760  37.511  59.936  1.00 49.43      AAAA O
ATOM  2653  CB  CYS  277      47.039  39.537  61.111  1.00 45.56      AAAA C
ATOM  2654  SG  CYS  277      48.629  40.083  61.645  1.00 52.86      AAAA S
ATOM  2655  H   PRO  278      44.380  38.261  61.993  1.00 54.65      AAAA H
ATOM  2656  CD  PRO  278      44.824  38.778  63.311  1.00 57.20      AAAA C
ATOM  2657  CA  PRO  278      42.946  38.185  61.899  1.00 55.80      AAAA C
ATOM  2658  CB  PRO  278      42.445  38.635  63.267  1.00 55.61      AAAA C
ATOM  2659  CG  PRO  278      43.605  38.670  64.153  1.00 55.58      AAAA C
ATOM  2660  C   PRO  278      42.487  39.116  60.781  1.00 52.55      AAAA C
ATOM  2661  O   PRO  278      43.083  40.195  60.631  1.00 48.76      AAAA O
ATOM  2662  H   SER  279      41.370  38.845  60.143  1.00 49.35      AAAA H
ATOM  2664  CA  SER  279      40.915  39.720  59.140  1.00 52.03      AAAA C
ATOM  2665  CB  SER  279      39.280  39.572  58.975  1.00 47.62      AAAA C
ATOM  2666  OG  SER  279      39.320  38.778  57.785  1.00 68.16      AAAA O
ATOM  2668  C   SER  279      41.003  41.209  59.173  1.00 55.40      AAAA C
ATOM  2669  O   SER  279      41.225  41.740  58.059  1.00 55.40      AAAA O
ATOM  2670  H   GLY  280      40.779  41.962  60.247  1.00 55.32      AAAA H
ATOM  2672  CA  GLY  280      40.968  43.406  59.868  1.00 48.58      AAAA C
ATOM  2673  C   GLY  280      42.248  43.890  60.479  1.00 55.98      AAAA C
ATOM  2674  O   GLY  280      42.240  45.097  60.772  1.00 56.00      AAAA O
ATOM  2675  H   PHE  281      43.213  42.983  60.742  1.00 55.42      AAAA H
ATOM  2677  CA  PHE  281      44.506  43.411  61.262  1.00 52.94      AAAA C
ATOM  2678  CB  PHE  281      44.938  42.644  62.523  1.00 61.20      AAAA C
ATOM  2679  CG  PHE  281      43.958  42.792  63.637  1.00 53.66      AAAA C
ATOM  2680  CD1 PHE  281      44.142  43.702  64.630  1.00 60.47      AAAA C
ATOM  2681  CD2 PHE  281      42.929  41.992  63.712  1.00 69.99      AAAA C
ATOM  2682  CE1 PHE  281      43.272  43.901  65.678  1.00 64.73      AAAA C
ATOM  2683  CE2 PHE  281      41.921  42.162  64.756  1.00 63.19      AAAA C
ATOM  2684  CZ  PHE  281      42.141  43.115  65.744  1.00 58.88      AAAA C
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Figure 1A-25

ATOM	2685	C	PHE	281	45.630	43.217	60.249	1.00	48.00	AAAA C
ATOM	2686	O	PHE	281	45.738	42.395	59.327	1.00	38.84	AAAA O
ATOM	2687	N	ILE	282	46.670	43.990	60.557	1.00	49.55	AAAA N
ATOM	2689	CA	ILE	282	47.937	43.984	59.748	1.00	45.00	AAAA C
ATOM	2690	CB	ILE	282	47.945	45.188	58.799	1.00	30.25	AAAA C
ATOM	2691	CG2	ILE	282	48.041	46.494	59.507	1.00	24.60	AAAA C
ATOM	2692	CG1	ILE	282	49.092	45.022	57.795	1.00	38.71	AAAA C
ATOM	2693	CD1	ILE	282	49.194	46.043	56.669	1.00	33.38	AAAA C
ATOM	2694	C	ILE	282	49.081	43.889	60.673	1.00	44.30	AAAA C
ATOM	2695	O	ILE	282	49.078	44.447	61.759	1.00	48.49	AAAA O
ATOM	2696	N	ARG	283	50.126	43.153	60.298	1.00	48.68	AAAA N
ATOM	2698	CA	ARG	283	51.396	43.094	61.048	1.00	39.30	AAAA C
ATOM	2699	CB	ARG	283	52.300	42.200	60.286	1.00	41.10	AAAA C
ATOM	2700	CG	ARG	283	52.295	40.696	60.515	1.00	29.19	AAAA C
ATOM	2701	CD	ARG	283	53.078	39.986	59.451	1.00	29.85	AAAA C
ATOM	2702	NE	ARG	283	52.823	38.545	59.404	1.00	29.39	AAAA N
ATOM	2704	CZ	ARG	283	51.862	38.024	58.646	1.00	37.61	AAAA C
ATOM	2705	NH1	ARG	283	51.065	38.846	57.944	1.00	31.41	AAAA N
ATOM	2708	NH2	ARG	283	51.651	36.722	58.596	1.00	31.97	AAAA N
ATOM	2711	C	ARG	283	51.945	44.498	61.190	1.00	42.27	AAAA C
ATOM	2712	O	ARG	283	51.931	45.228	60.173	1.00	43.42	AAAA O
ATOM	2713	N	ASN	284	52.362	44.886	62.422	1.00	39.49	AAAA N
ATOM	2715	CA	ASN	284	52.733	46.311	62.574	1.00	42.07	AAAA C
ATOM	2721	C	ASN	284	54.078	46.656	61.929	1.00	41.64	AAAA C
ATOM	2722	O	ASN	284	54.431	47.798	61.742	1.00	39.01	AAAA O
ATOM	2716	CB	ASN	284	52.734	46.760	64.032	1.00	37.33	AAAA C
ATOM	2717	CG	ASN	284	53.917	46.028	64.611	1.00	50.21	AAAA C
ATOM	2718	OD1	ASN	284	54.609	45.104	64.192	1.00	44.30	AAAA O
ATOM	2719	ND2	ASN	284	54.323	46.432	65.842	1.00	42.46	AAAA N
ATOM	2723	N	GLY	285	54.931	45.699	61.562	1.00	40.10	AAAA N
ATOM	2725	CA	GLY	285	55.972	45.815	60.593	1.00	26.91	AAAA C
ATOM	2726	C	GLY	285	56.091	44.468	59.848	1.00	33.12	AAAA C
ATOM	2727	O	GLY	285	55.584	43.331	60.187	1.00	29.51	AAAA O
ATOM	2728	N	SER	286	56.915	44.619	58.766	1.00	26.53	AAAA N
ATOM	2730	CA	SER	286	57.109	43.385	57.975	1.00	32.67	AAAA C
ATOM	2731	CB	SER	286	57.944	43.661	56.757	1.00	33.19	AAAA C
ATOM	2732	OG	SER	286	58.283	42.480	56.014	1.00	31.95	AAAA O
ATOM	2734	C	SER	286	57.750	42.310	58.836	1.00	34.57	AAAA C
ATOM	2735	O	SER	286	58.700	42.495	59.607	1.00	44.29	AAAA O
ATOM	2736	N	GLN	287	57.227	41.148	58.940	1.00	34.45	AAAA N
ATOM	2738	CA	GLN	287	57.738	40.005	59.634	1.00	35.25	AAAA C
ATOM	2739	CB	GLN	287	59.139	39.610	59.083	1.00	27.97	AAAA C
ATOM	2740	CG	GLN	287	59.037	39.234	57.664	1.00	26.61	AAAA C
ATOM	2741	CD	GLN	287	58.539	37.963	57.130	1.00	21.25	AAAA C
ATOM	2742	OE1	GLN	287	58.192	37.023	57.845	1.00	28.18	AAAA O
ATOM	2743	NE2	GLN	287	58.492	37.838	55.782	1.00	27.55	AAAA N
ATOM	2746	C	GLN	287	57.773	40.286	61.111	1.00	30.25	AAAA C
ATOM	2747	O	GLN	287	58.163	39.415	61.908	1.00	32.78	AAAA O
ATOM	2748	N	SER	288	57.021	41.217	61.624	1.00	32.49	AAAA N
ATOM	2750	CA	SER	288	56.696	41.322	63.043	1.00	28.98	AAAA C
ATOM	2751	CB	SER	288	56.024	42.675	63.313	1.00	35.79	AAAA C
ATOM	2752	OG	SER	288	55.639	42.622	64.701	1.00	36.61	AAAA O
ATOM	2754	C	SER	288	55.665	40.285	63.442	1.00	28.96	AAAA C
ATOM	2755	O	SER	288	54.993	39.776	62.553	1.00	31.16	AAAA O
ATOM	2756	N	MET	289	55.774	39.720	64.621	1.00	32.51	AAAA N
ATOM	2758	CA	MET	289	54.975	38.697	65.105	1.00	34.53	AAAA C
ATOM	2759	CB	MET	289	55.507	37.823	66.153	1.00	30.31	AAAA C
ATOM	2760	CG	MET	289	56.571	36.872	65.680	1.00	40.50	AAAA C
ATOM	2761	SD	MET	289	56.977	35.623	66.881	1.00	31.65	AAAA S
ATOM	2762	CE	MET	289	55.745	34.315	66.508	1.00	30.47	AAAA C
ATOM	2763	C	MET	289	53.557	39.286	65.703	1.00	35.55	AAAA C
ATOM	2764	O	MET	289	52.630	38.512	66.014	1.00	38.37	AAAA O
ATOM	2765	N	TYR	290	53.380	40.565	65.742	1.00	29.54	AAAA N
ATOM	2767	CA	TYR	290	52.363	41.358	66.297	1.00	38.81	AAAA C
ATOM	2768	CB	TYR	290	52.947	42.589	67.042	1.00	36.72	AAAA C
ATOM	2769	CG	TYR	290	53.570	42.184	68.351	1.00	41.94	AAAA C
ATOM	2770	CD1	TYR	290	54.932	41.780	68.350	1.00	37.79	AAAA C
ATOM	2771	CE1	TYR	290	55.548	41.368	69.503	1.00	32.60	AAAA C
ATOM	2772	CD2	TYR	290	52.987	42.157	69.570	1.00	39.93	AAAA C
ATOM	2773	CE2	TYR	290	53.501	41.750	70.748	1.00	36.16	AAAA C
ATOM	2774	CZ	TYR	290	54.822	41.355	70.693	1.00	38.85	AAAA C
ATOM	2775	OH	TYR	290	55.581	40.923	71.751	1.00	43.41	AAAA O
ATOM	2777	C	TYR	290	51.361	41.955	65.270	1.00	45.54	AAAA C
ATOM	2778	O	TYR	290	51.733	42.520	64.227	1.00	47.10	AAAA O
ATOM	2779	N	CYS	291	50.071	41.698	65.537	1.00	44.68	AAAA N
ATOM	2781	CA	CYS	291	49.317	42.205	64.685	1.00	47.20	AAAA C
ATOM	2782	C	CYS	291	48.295	43.434	65.194	1.00	46.06	AAAA C
ATOM	2783	O	CYS	291	47.992	43.550	66.343	1.00	49.45	AAAA O
ATOM	2784	CB	CYS	291	47.973	41.103	64.483	1.00	43.44	AAAA C
ATOM	2785	SG	CYS	291	48.766	39.715	63.683	1.00	45.49	AAAA S
ATOM	2786	N	ILE	292	48.136	44.453	64.365	1.00	46.82	AAAA N
ATOM	2788	CA	ILE	292	47.399	45.651	64.755	1.00	50.64	AAAA C
ATOM	2789	CB	ILE	292	48.267	46.932	64.779	1.00	39.19	AAAA C
ATOM	2790	CG2	ILE	292	49.291	46.885	65.861	1.00	44.39	AAAA C
ATOM	2791	CG1	ILE	292	48.920	47.095	63.402	1.00	44.25	AAAA C

Figure 1A-26

ATOM	2792	CD1	ILE	292	49.234	48.564	63.104	1.00	32.80	AAAA C
ATOM	2793	C	ILE	292	46.249	46.003	63.906	1.00	50.01	AAAA C
ATOM	2794	O	ILE	292	46.165	45.526	62.670	1.00	46.64	AAAA O
ATOM	2795	N	PRO	293	45.159	46.507	64.395	1.00	51.86	AAAA N
ATOM	2796	CD	PRO	293	45.009	46.804	65.819	1.00	51.05	AAAA C
ATOM	2797	CA	PRO	293	43.958	46.930	63.675	1.00	51.40	AAAA C
ATOM	2798	CB	PRO	293	43.176	47.784	64.681	1.00	49.00	AAAA C
ATOM	2799	CG	PRO	293	43.533	47.112	65.951	1.00	53.72	AAAA C
ATOM	2800	C	PRO	293	44.253	47.870	62.525	1.00	51.68	AAAA C
ATOM	2801	O	PRO	293	45.053	48.780	62.737	1.00	51.92	AAAA O
ATOM	2802	N	CYS	294	43.607	47.621	61.408	1.00	50.66	AAAA N
ATOM	2804	CA	CYS	294	43.811	48.464	60.254	1.00	57.90	AAAA C
ATOM	2805	C	CYS	294	43.219	49.848	60.345	1.00	59.59	AAAA C
ATOM	2806	O	CYS	294	43.744	50.814	59.785	1.00	60.87	AAAA O
ATOM	2807	CB	CYS	294	43.229	47.686	59.046	1.00	57.59	AAAA C
ATOM	2808	SG	CYS	294	44.408	46.460	58.563	1.00	51.12	AAAA S
ATOM	2809	N	ALA	295	42.009	50.031	60.954	1.00	65.87	AAAA N
ATOM	2811	CA	ALA	295	41.391	51.386	60.804	1.00	71.19	AAAA C
ATOM	2812	CB	ALA	295	42.311	52.459	61.393	1.00	63.82	AAAA C
ATOM	2813	C	ALA	295	40.971	51.770	59.379	1.00	69.17	AAAA C
ATOM	2814	O	ALA	295	41.421	52.717	58.762	1.00	64.70	AAAA O
ATOM	2815	N	GLY	296	40.153	50.920	58.775	1.00	71.30	AAAA N
ATOM	2817	CA	GLY	296	39.640	51.049	57.416	1.00	72.66	AAAA C
ATOM	2818	C	GLY	296	39.895	49.686	56.769	1.00	74.20	AAAA C
ATOM	2819	O	GLY	296	40.408	48.819	57.490	1.00	75.04	AAAA O
ATOM	2820	N	PRO	297	39.561	49.540	55.497	1.00	71.98	AAAA N
ATOM	2821	CD	PRO	297	38.928	50.561	54.637	1.00	72.15	AAAA C
ATOM	2822	CA	PRO	297	39.958	48.344	54.777	1.00	68.23	AAAA C
ATOM	2823	CB	PRO	297	39.488	48.603	53.369	1.00	72.57	AAAA C
ATOM	2824	CG	PRO	297	38.470	49.687	53.490	1.00	74.01	AAAA C
ATOM	2825	C	PRO	297	41.480	48.306	54.860	1.00	65.78	AAAA C
ATOM	2826	O	PRO	297	42.147	49.323	54.997	1.00	62.72	AAAA O
ATOM	2827	N	CYS	298	42.039	47.135	55.073	1.00	63.85	AAAA N
ATOM	2829	CA	CYS	298	43.464	46.953	55.248	1.00	54.47	AAAA C
ATOM	2830	C	CYS	298	44.109	47.303	53.908	1.00	54.56	AAAA C
ATOM	2831	O	CYS	298	43.621	47.030	52.820	1.00	54.83	AAAA O
ATOM	2832	CB	CYS	298	43.665	45.544	55.669	1.00	47.65	AAAA C
ATOM	2833	SG	CYS	298	43.501	45.115	57.371	1.00	46.12	AAAA S
ATOM	2834	N	PRO	299	45.310	47.876	53.967	1.00	49.83	AAAA N
ATOM	2835	CD	PRO	299	46.087	48.168	55.194	1.00	48.14	AAAA C
ATOM	2836	CA	PRO	299	46.055	48.212	52.787	1.00	43.67	AAAA C
ATOM	2837	CB	PRO	299	47.267	48.965	53.281	1.00	44.08	AAAA C
ATOM	2838	CG	PRO	299	47.454	48.361	54.628	1.00	51.38	AAAA C
ATOM	2839	C	PRO	299	46.341	46.969	52.010	1.00	38.86	AAAA C
ATOM	2840	O	PRO	299	46.372	45.874	52.546	1.00	42.85	AAAA O
ATOM	2841	N	LYS	300	46.310	47.073	50.712	1.00	38.30	AAAA N
ATOM	2843	CA	LYS	300	46.484	45.958	49.812	1.00	42.62	AAAA C
ATOM	2844	CB	LYS	300	45.276	45.226	49.595	1.00	34.28	AAAA C
ATOM	2845	CG	LYS	300	45.346	43.901	48.920	1.00	41.45	AAAA C
ATOM	2846	CD	LYS	300	44.013	43.413	48.378	1.00	48.31	AAAA C
ATOM	2847	CE	LYS	300	44.388	42.027	47.787	1.00	48.57	AAAA C
ATOM	2848	NZ	LYS	300	43.662	42.031	46.478	1.00	63.79	AAAA N
ATOM	2852	C	LYS	300	46.964	46.479	48.432	1.00	48.72	AAAA C
ATOM	2853	O	LYS	300	46.413	47.383	47.776	1.00	46.09	AAAA O
ATOM	2854	N	VAL	301	48.150	45.984	48.054	1.00	48.15	AAAA N
ATOM	2856	CA	VAL	301	48.802	46.462	46.871	1.00	44.52	AAAA C
ATOM	2857	CB	VAL	301	50.292	46.729	47.074	1.00	51.52	AAAA C
ATOM	2858	CG1	VAL	301	51.008	47.220	45.796	1.00	43.07	AAAA C
ATOM	2859	CG2	VAL	301	50.495	47.794	48.141	1.00	49.50	AAAA C
ATOM	2860	C	VAL	301	48.526	45.410	45.837	1.00	44.59	AAAA C
ATOM	2861	O	VAL	301	48.913	44.291	46.060	1.00	43.70	AAAA O
ATOM	2862	N	CYS	302	47.910	45.816	44.718	1.00	47.98	AAAA N
ATOM	2864	CA	CYS	302	47.645	44.735	43.739	1.00	55.19	AAAA C
ATOM	2865	C	CYS	302	48.594	44.968	42.583	1.00	57.64	AAAA C
ATOM	2866	O	CYS	302	48.852	46.152	42.313	1.00	60.23	AAAA O
ATOM	2867	CB	CYS	302	46.186	44.630	43.330	1.00	68.30	AAAA C
ATOM	2868	SG	CYS	302	45.070	44.360	44.751	1.00	70.31	AAAA S
ATOM	2869	N	GLU	303	49.184	43.921	42.075	1.00	58.15	AAAA N
ATOM	2871	CA	GLU	303	50.174	43.932	41.034	1.00	62.85	AAAA C
ATOM	2872	CB	GLU	303	51.503	44.006	41.595	1.00	67.85	AAAA C
ATOM	2873	CG	GLU	303	51.760	43.487	43.014	0.01	67.46	AAAA C
ATOM	2874	CD	GLU	303	51.989	41.992	43.097	0.01	67.91	AAAA C
ATOM	2875	OE1	GLU	303	53.011	41.514	42.561	0.01	67.67	AAAA O
ATOM	2876	OE2	GLU	303	51.147	41.290	43.697	0.01	67.65	AAAA O
ATOM	2877	C	GLU	303	50.096	42.662	40.194	1.00	64.12	AAAA C
ATOM	2878	O	GLU	303	50.162	41.562	40.708	1.00	65.08	AAAA O
ATOM	2879	N	GLU	304	49.867	42.794	38.904	1.00	67.37	AAAA N
ATOM	2881	CA	GLU	304	49.672	41.583	38.094	1.00	74.63	AAAA C
ATOM	2882	CB	GLU	304	48.285	41.596	37.459	1.00	71.71	AAAA C
ATOM	2883	CG	GLU	304	47.339	42.663	38.031	1.00	84.54	AAAA C
ATOM	2884	CD	GLU	304	45.930	42.152	38.195	1.00	87.56	AAAA C
ATOM	2885	OE1	GLU	304	45.430	41.571	37.179	1.00	89.13	AAAA O
ATOM	2886	OE2	GLU	304	45.249	42.269	39.233	1.00	93.19	AAAA O
ATOM	2887	C	GLU	304	50.966	41.307	37.130	1.00	76.19	AAAA C
ATOM	2888	O	GLU	304	51.911	41.962	37.217	1.00	74.78	AAAA O

Figure 1A-27

ATOM	2989	N	GLU	305	50.899	40.126	36.566	1.00	77.31	AAAA N
ATOM	2991	CA	GLU	305	51.932	39.656	35.674	1.00	75.99	AAAA C
ATOM	2992	CB	GLU	305	51.467	38.380	34.979	1.00	79.95	AAAA C
ATOM	2993	CG	GLU	305	52.307	37.937	33.807	1.00	87.28	AAAA C
ATOM	2994	CD	GLU	305	51.758	36.801	32.986	0.01	83.39	AAAA C
ATOM	2995	OE1	GLU	305	50.762	36.234	33.252	0.01	83.66	AAAA O
ATOM	2996	OE2	GLU	305	52.310	36.700	31.780	0.01	83.73	AAAA O
ATOM	2997	C	GLU	305	52.276	40.737	34.666	1.00	75.97	AAAA C
ATOM	2998	O	GLU	305	53.381	41.268	34.613	1.00	76.54	AAAA O
ATOM	2999	N	LYS	306	51.291	41.181	33.888	1.00	78.22	AAAA N
ATOM	3001	CA	LYS	306	51.479	42.329	33.004	1.00	75.99	AAAA C
ATOM	3002	CB	LYS	306	50.467	42.253	31.855	1.00	79.78	AAAA C
ATOM	3003	CG	LYS	306	51.208	42.227	30.527	1.00	94.52	AAAA C
ATOM	3004	CD	LYS	306	50.313	42.191	29.314	1.00	92.78	AAAA C
ATOM	3005	CE	LYS	306	50.740	43.227	28.261	1.00	97.10	AAAA C
ATOM	3006	NZ	LYS	306	50.938	44.554	28.929	1.00	84.87	AAAA N
ATOM	3010	C	LYS	306	51.381	43.669	33.703	1.00	73.85	AAAA C
ATOM	3011	O	LYS	306	50.703	43.862	34.710	1.00	76.08	AAAA O
ATOM	3012	N	LYS	307	52.000	44.700	33.180	1.00	71.15	AAAA N
ATOM	3014	CA	LYS	307	51.934	46.053	33.692	1.00	69.45	AAAA C
ATOM	3015	CB	LYS	307	53.022	46.903	33.008	1.00	79.64	AAAA C
ATOM	3016	CG	LYS	307	54.419	46.837	33.564	1.00	78.88	AAAA C
ATOM	3017	CD	LYS	307	55.257	48.084	33.374	1.00	85.84	AAAA C
ATOM	3018	CE	LYS	307	55.708	48.215	31.924	1.00	97.07	AAAA C
ATOM	3019	NZ	LYS	307	54.649	48.840	31.067	1.00	97.80	AAAA N
ATOM	3023	C	LYS	307	50.562	46.716	33.525	1.00	67.97	AAAA C
ATOM	3024	O	LYS	307	50.010	47.369	34.431	1.00	64.46	AAAA O
ATOM	3025	N	THR	308	49.979	46.661	32.323	1.00	65.84	AAAA N
ATOM	3027	CA	THR	308	48.709	47.319	32.091	1.00	64.56	AAAA C
ATOM	3028	CB	THR	308	48.714	47.977	30.711	1.00	59.91	AAAA C
ATOM	3029	OG1	THR	308	49.834	48.843	30.577	1.00	61.97	AAAA O
ATOM	3031	CG2	THR	308	47.392	48.742	30.561	1.00	63.64	AAAA C
ATOM	3032	C	THR	308	47.514	46.379	32.234	1.00	61.82	AAAA C
ATOM	3033	O	THR	308	47.412	45.415	31.477	1.00	62.05	AAAA O
ATOM	3034	N	LYS	309	46.675	46.719	33.211	1.00	55.66	AAAA N
ATOM	3036	CA	LYS	309	45.456	45.926	33.445	1.00	54.67	AAAA C
ATOM	3037	CB	LYS	309	45.043	45.880	34.904	1.00	56.82	AAAA C
ATOM	3038	CG	LYS	309	43.601	45.541	35.223	1.00	57.50	AAAA C
ATOM	3039	CD	LYS	309	43.390	44.039	35.086	1.00	59.50	AAAA C
ATOM	3040	CE	LYS	309	42.703	43.448	36.324	1.00	57.31	AAAA C
ATOM	3041	NZ	LYS	309	42.758	41.954	36.236	1.00	57.22	AAAA N
ATOM	3045	C	LYS	309	44.391	46.570	32.548	1.00	51.21	AAAA C
ATOM	3046	O	LYS	309	44.074	47.763	32.680	1.00	47.23	AAAA O
ATOM	3047	N	THR	310	43.895	45.772	31.610	1.00	47.67	AAAA N
ATOM	3049	CA	THR	310	42.862	46.328	30.733	1.00	51.89	AAAA C
ATOM	3050	CB	THR	310	43.161	46.015	29.266	1.00	54.81	AAAA C
ATOM	3051	OG1	THR	310	41.909	45.710	28.635	1.00	66.29	AAAA O
ATOM	3053	CG2	THR	310	44.032	44.791	29.139	1.00	55.18	AAAA C
ATOM	3054	C	THR	310	41.468	45.841	31.117	1.00	51.15	AAAA C
ATOM	3055	O	THR	310	41.162	44.680	30.991	1.00	49.27	AAAA O
ATOM	3056	N	ILE	311	40.684	46.706	31.732	1.00	50.18	AAAA N
ATOM	3058	CA	ILE	311	39.363	46.453	32.276	1.00	48.67	AAAA C
ATOM	3059	CB	ILE	311	39.120	47.396	33.462	1.00	49.27	AAAA C
ATOM	3060	CG2	ILE	311	37.655	47.596	33.799	1.00	50.72	AAAA C
ATOM	3061	CG1	ILE	311	39.896	46.930	34.699	1.00	41.34	AAAA C
ATOM	3062	CD1	ILE	311	39.847	48.073	35.739	1.00	52.22	AAAA C
ATOM	3063	C	ILE	311	38.334	46.729	31.186	1.00	45.37	AAAA C
ATOM	3064	O	ILE	311	38.132	47.875	30.758	1.00	37.14	AAAA O
ATOM	3065	N	ASP	312	37.871	45.678	30.524	1.00	50.10	AAAA N
ATOM	3067	CA	ASP	312	36.991	45.842	29.377	1.00	56.35	AAAA C
ATOM	3068	CB	ASP	312	37.546	45.152	29.128	1.00	59.45	AAAA C
ATOM	3069	CG	ASP	312	37.761	43.671	28.382	1.00	65.64	AAAA C
ATOM	3070	OD1	ASP	312	38.525	43.034	27.636	1.00	72.60	AAAA O
ATOM	3071	OD2	ASP	312	37.154	43.176	29.348	1.00	66.86	AAAA O
ATOM	3072	C	ASP	312	35.589	45.337	29.693	1.00	59.39	AAAA C
ATOM	3073	O	ASP	312	34.729	45.907	28.867	1.00	61.00	AAAA O
ATOM	3074	N	SER	313	35.278	45.290	30.976	1.00	61.17	AAAA N
ATOM	3076	CA	SER	313	34.053	44.683	31.459	1.00	55.73	AAAA C
ATOM	3077	CB	SER	313	34.121	43.201	31.093	1.00	48.22	AAAA C
ATOM	3078	OG	SER	313	34.373	42.914	32.282	1.00	57.89	AAAA O
ATOM	3080	C	SER	313	33.998	44.818	32.911	1.00	57.87	AAAA C
ATOM	3081	O	SER	313	34.892	45.506	33.537	1.00	66.17	AAAA O
ATOM	3082	N	VAL	314	33.001	44.205	33.545	1.00	64.35	AAAA N
ATOM	3084	CA	VAL	314	32.849	44.305	35.015	1.00	64.39	AAAA C
ATOM	3085	CB	VAL	314	31.360	44.340	35.343	1.00	69.57	AAAA C
ATOM	3086	CG1	VAL	314	31.024	43.693	36.691	1.00	65.60	AAAA C
ATOM	3087	CG2	VAL	314	30.927	45.823	35.319	1.00	65.27	AAAA C
ATOM	3088	C	VAL	314	33.492	43.088	35.638	1.00	62.65	AAAA C
ATOM	3089	O	VAL	314	34.029	43.141	36.704	1.00	63.92	AAAA O
ATOM	3090	N	THR	315	33.468	42.011	34.878	1.00	61.82	AAAA N
ATOM	3092	CA	THR	315	34.029	40.752	35.284	1.00	63.44	AAAA C
ATOM	3093	CB	THR	315	33.618	39.628	34.314	1.00	68.54	AAAA C
ATOM	3094	OG1	THR	315	32.404	40.004	33.634	1.00	74.05	AAAA O
ATOM	3096	CG2	THR	315	33.339	38.366	35.104	1.00	64.80	AAAA C
ATOM	3097	C	THR	315	35.541	40.871	35.325	1.00	65.82	AAAA C

Figure 1A-28

ATOM	2998	O	THR	315	36.217	36.339	36.206	1.00	66.41	AAAA O
ATOM	2999	N	SER	316	36.071	41.593	34.332	1.00	63.28	AAAA N
ATOM	3001	CA	SER	316	37.500	41.793	34.215	1.00	58.72	AAAA C
ATOM	3002	CB	SER	316	37.795	42.537	32.900	1.00	52.20	AAAA C
ATOM	3003	OG	SER	316	37.298	43.859	32.933	1.00	48.04	AAAA O
ATOM	3005	C	SER	316	38.077	42.573	35.387	1.00	58.91	AAAA C
ATOM	3006	O	SER	316	39.293	42.522	35.520	1.00	59.86	AAAA O
ATOM	3007	N	ALA	317	37.310	43.362	36.111	1.00	55.86	AAAA N
ATOM	3009	CA	ALA	317	37.750	44.184	37.191	1.00	57.17	AAAA C
ATOM	3010	CB	ALA	317	36.933	45.409	37.269	1.00	54.23	AAAA C
ATOM	3011	C	ALA	317	37.689	43.487	38.539	1.00	62.05	AAAA C
ATOM	3012	O	ALA	317	37.702	44.128	39.599	1.00	60.30	AAAA O
ATOM	3013	N	GLU	318	37.361	42.205	38.523	1.00	67.91	AAAA N
ATOM	3015	CA	GLU	318	37.185	41.380	39.713	1.00	70.72	AAAA C
ATOM	3016	CB	GLU	318	36.857	39.956	39.293	1.00	74.48	AAAA C
ATOM	3017	CG	GLU	318	36.624	38.947	40.383	1.00	89.82	AAAA C
ATOM	3018	CD	GLU	318	35.265	39.080	41.048	1.00	92.69	AAAA C
ATOM	3019	OE1	GLU	318	34.256	38.807	40.391	1.00	98.57	AAAA O
ATOM	3020	NE2	GLU	318	35.356	39.509	42.308	1.00	92.51	AAAA N
ATOM	3023	C	GLU	318	38.380	41.413	40.653	1.00	72.63	AAAA C
ATOM	3024	O	GLU	318	38.294	41.855	41.804	1.00	68.92	AAAA O
ATOM	3025	N	MET	319	39.562	41.062	40.153	1.00	75.18	AAAA N
ATOM	3027	CA	MET	319	40.846	41.175	40.826	1.00	71.85	AAAA C
ATOM	3028	CB	MET	319	41.950	40.960	39.772	1.00	82.00	AAAA C
ATOM	3029	CG	MET	319	41.740	39.644	39.050	1.00	91.16	AAAA C
ATOM	3030	SD	MET	319	43.123	38.482	39.185	1.00	106.72	AAAA S
ATOM	3031	CE	MET	319	42.486	37.105	38.231	1.00	97.56	AAAA C
ATOM	3032	C	MET	319	41.118	42.509	41.471	1.00	67.68	AAAA C
ATOM	3033	O	MET	319	41.537	42.541	42.612	1.00	69.73	AAAA O
ATOM	3034	N	LEU	320	40.746	43.639	40.887	1.00	62.95	AAAA N
ATOM	3036	CA	LEU	320	40.907	44.938	41.531	1.00	62.31	AAAA C
ATOM	3037	CB	LEU	320	40.440	46.085	40.623	1.00	54.93	AAAA C
ATOM	3038	CG	LEU	320	41.091	46.163	39.238	1.00	53.48	AAAA C
ATOM	3039	CD1	LEU	320	41.005	47.552	38.692	1.00	51.31	AAAA C
ATOM	3040	CD2	LEU	320	42.557	45.709	39.403	1.00	58.43	AAAA C
ATOM	3041	C	LEU	320	40.209	45.008	42.881	1.00	60.30	AAAA C
ATOM	3042	O	LEU	320	40.344	45.969	43.661	1.00	58.72	AAAA O
ATOM	3043	N	GLU	321	39.267	44.106	43.112	1.00	59.62	AAAA N
ATOM	3045	CA	GLU	321	38.482	44.128	44.343	1.00	63.50	AAAA C
ATOM	3046	CB	GLU	321	37.373	43.089	44.250	1.00	62.52	AAAA C
ATOM	3047	CG	GLU	321	36.611	42.854	45.522	1.00	56.83	AAAA C
ATOM	3048	CD	GLU	321	35.337	42.064	45.221	1.00	68.77	AAAA C
ATOM	3049	OE1	GLU	321	35.362	40.969	44.718	1.00	70.37	AAAA O
ATOM	3050	NE2	GLU	321	34.218	42.632	45.764	1.00	63.77	AAAA N
ATOM	3053	C	GLU	321	39.367	44.030	45.594	1.00	60.97	AAAA C
ATOM	3054	O	GLU	321	40.262	43.196	45.782	1.00	57.29	AAAA O
ATOM	3055	N	GLY	322	39.092	44.928	46.546	1.00	57.62	AAAA N
ATOM	3057	CA	GLY	322	39.855	44.928	47.790	1.00	60.63	AAAA C
ATOM	3058	C	GLY	322	41.126	45.773	47.812	1.00	61.78	AAAA C
ATOM	3059	O	GLY	322	41.584	46.198	48.889	1.00	60.16	AAAA O
ATOM	3060	N	CYS	323	41.719	46.124	46.676	1.00	60.03	AAAA N
ATOM	3062	CA	CYS	323	42.938	46.845	46.528	1.00	54.20	AAAA C
ATOM	3063	C	CYS	323	42.924	48.307	46.910	1.00	53.48	AAAA C
ATOM	3064	O	CYS	323	42.105	49.148	46.503	1.00	56.43	AAAA O
ATOM	3065	CB	CYS	323	43.458	46.822	45.096	1.00	53.33	AAAA C
ATOM	3066	SG	CYS	323	43.325	45.222	44.248	1.00	66.22	AAAA S
ATOM	3067	N	THR	324	43.994	48.718	47.580	1.00	49.83	AAAA N
ATOM	3069	CA	THR	324	44.164	50.161	47.811	1.00	52.29	AAAA C
ATOM	3070	CB	THR	324	44.623	50.324	49.264	1.00	52.84	AAAA C
ATOM	3071	OG1	THR	324	45.245	49.087	49.634	1.00	59.82	AAAA O
ATOM	3073	CG2	THR	324	43.432	50.517	50.193	1.00	60.00	AAAA C
ATOM	3074	C	THR	324	45.154	50.802	46.844	1.00	48.91	AAAA C
ATOM	3075	O	THR	324	45.277	52.016	46.710	1.00	46.90	AAAA O
ATOM	3076	N	ILE	325	46.021	49.963	46.254	1.00	46.87	AAAA N
ATOM	3078	CA	ILE	325	47.114	50.511	45.445	1.00	45.10	AAAA C
ATOM	3079	CB	ILE	325	48.473	50.577	46.183	1.00	43.60	AAAA C
ATOM	3080	CG2	ILE	325	49.586	50.905	45.163	1.00	47.47	AAAA C
ATOM	3081	CG1	ILE	325	48.394	51.623	47.294	1.00	34.03	AAAA C
ATOM	3082	CD1	ILE	325	49.595	52.010	48.028	1.00	41.94	AAAA C
ATOM	3083	C	ILE	325	47.265	49.642	44.229	1.00	42.88	AAAA C
ATOM	3084	O	ILE	325	47.496	48.429	44.469	1.00	42.99	AAAA O
ATOM	3085	N	PHE	326	47.170	50.238	43.042	1.00	41.19	AAAA N
ATOM	3087	CA	PHE	326	47.312	49.334	41.880	1.00	42.98	AAAA C
ATOM	3088	CB	PHE	326	46.166	49.437	40.877	1.00	39.15	AAAA C
ATOM	3089	CG	PHE	326	46.403	48.474	39.739	1.00	38.03	AAAA C
ATOM	3090	CD1	PHE	326	46.186	47.125	39.951	1.00	39.68	AAAA C
ATOM	3091	CD2	PHE	326	46.917	48.892	38.525	1.00	37.31	AAAA C
ATOM	3092	CE1	PHE	326	46.447	46.139	39.023	1.00	36.52	AAAA C
ATOM	3093	CE2	PHE	326	47.136	47.919	37.551	1.00	45.74	AAAA C
ATOM	3094	CZ	PHE	326	46.924	46.570	37.787	1.00	39.92	AAAA C
ATOM	3095	C	PHE	326	48.682	49.673	41.280	1.00	48.78	AAAA C
ATOM	3096	O	PHE	326	49.024	50.826	40.966	1.00	51.39	AAAA O
ATOM	3097	N	LYS	327	49.623	48.751	41.379	1.00	50.22	AAAA N
ATOM	3099	CA	LYS	327	50.964	49.963	40.831	1.00	51.49	AAAA C
ATOM	3100	CB	LYS	327	52.050	48.091	41.519	1.00	58.64	AAAA C

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ATOM	3101	CG	LYS	327	53.254	48.997	41.991	1.00	59.15	AAAA C
ATOM	3102	CD	LYS	327	54.528	48.257	41.617	1.00	63.49	AAAA C
ATOM	3103	CE	LYS	327	55.400	48.951	40.592	1.00	68.12	AAAA C
ATOM	3104	NZ	LYS	327	56.260	47.889	39.938	1.00	71.97	AAAA N
ATOM	3108	C	LYS	327	50.895	48.464	39.391	1.00	45.70	AAAA C
ATOM	3109	O	LYS	327	50.901	47.245	39.127	1.00	49.55	AAAA O
ATOM	3110	N	GLY	328	50.760	49.397	38.502	1.00	39.68	AAAA N
ATOM	3112	CA	GLY	328	50.647	49.038	37.080	1.00	39.44	AAAA C
ATOM	3113	C	GLY	328	49.845	50.161	36.427	1.00	39.49	AAAA C
ATOM	3114	O	GLY	328	49.858	51.307	36.881	1.00	31.92	AAAA O
ATOM	3115	N	ASN	329	49.286	49.813	35.289	1.00	41.47	AAAA N
ATOM	3117	CA	ASN	329	48.467	50.750	34.543	1.00	46.72	AAAA C
ATOM	3118	CB	ASN	329	49.185	50.942	33.211	1.00	42.50	AAAA C
ATOM	3119	CG	ASN	329	50.624	51.426	33.357	1.00	42.26	AAAA C
ATOM	3120	OD1	ASN	329	50.954	52.331	34.156	1.00	34.77	AAAA O
ATOM	3121	ND2	ASN	329	51.425	50.769	32.530	1.00	30.62	AAAA N
ATOM	3124	C	ASN	329	47.038	50.207	34.357	1.00	50.37	AAAA C
ATOM	3125	O	ASN	329	46.736	49.015	34.119	1.00	50.17	AAAA O
ATOM	3126	N	LEU	330	46.090	51.143	34.413	1.00	47.13	AAAA N
ATOM	3128	CA	LEU	330	44.691	50.860	34.151	1.00	42.53	AAAA C
ATOM	3129	CB	LEU	330	43.751	51.530	35.153	1.00	42.84	AAAA C
ATOM	3130	CG	LEU	330	43.768	50.995	36.598	1.00	38.65	AAAA C
ATOM	3131	CD1	LEU	330	42.864	51.924	37.417	1.00	38.12	AAAA C
ATOM	3132	CD2	LEU	330	43.283	49.565	36.669	1.00	38.74	AAAA C
ATOM	3133	C	LEU	330	44.352	51.377	32.758	1.00	39.10	AAAA C
ATOM	3134	O	LEU	330	44.509	52.545	32.460	1.00	40.71	AAAA O
ATOM	3135	N	LEU	331	43.933	50.516	31.904	1.00	36.10	AAAA N
ATOM	3137	CA	LEU	331	43.367	50.869	30.625	1.00	43.10	AAAA C
ATOM	3138	CB	LEU	331	43.958	49.894	29.585	1.00	42.29	AAAA C
ATOM	3139	CG	LEU	331	43.301	49.960	28.221	1.00	40.89	AAAA C
ATOM	3140	CD1	LEU	331	43.501	51.319	27.627	1.00	46.64	AAAA C
ATOM	3141	CD2	LEU	331	43.844	48.834	27.367	1.00	48.76	AAAA C
ATOM	3142	C	LEU	331	41.872	50.568	30.705	1.00	41.12	AAAA C
ATOM	3143	O	LEU	331	41.562	49.365	30.779	1.00	40.08	AAAA O
ATOM	3144	N	ILE	332	41.029	51.566	30.862	1.00	41.13	AAAA N
ATOM	3146	CA	ILE	332	39.606	51.241	31.044	1.00	36.90	AAAA C
ATOM	3147	CB	ILE	332	38.885	52.085	32.076	1.00	34.77	AAAA C
ATOM	3148	CG2	ILE	332	37.413	51.612	32.195	1.00	34.66	AAAA C
ATOM	3149	CG1	ILE	332	39.550	51.895	33.452	1.00	33.64	AAAA C
ATOM	3150	CD1	ILE	332	39.479	53.152	34.337	1.00	48.21	AAAA C
ATOM	3151	C	ILE	332	38.959	51.367	29.688	1.00	34.03	AAAA C
ATOM	3152	O	ILE	332	38.867	52.489	29.200	1.00	35.89	AAAA O
ATOM	3153	N	ASN	333	38.569	50.273	29.094	1.00	35.25	AAAA N
ATOM	3155	CA	ASN	333	38.014	50.283	27.737	1.00	40.34	AAAA C
ATOM	3156	CB	ASN	333	38.960	49.499	26.797	1.00	50.50	AAAA C
ATOM	3157	CG	ASN	333	38.668	49.493	25.310	1.00	59.29	AAAA C
ATOM	3158	OD1	ASN	333	37.845	48.711	24.784	1.00	64.54	AAAA O
ATOM	3159	ND2	ASN	333	39.290	50.350	24.467	1.00	45.83	AAAA N
ATOM	3162	C	ASN	333	36.666	49.581	27.755	1.00	47.63	AAAA C
ATOM	3163	O	ASN	333	36.462	48.409	27.398	1.00	44.40	AAAA O
ATOM	3164	N	ILE	334	35.644	50.213	28.315	1.00	54.13	AAAA N
ATOM	3166	CA	ILE	334	34.332	49.537	28.460	1.00	59.07	AAAA C
ATOM	3167	CB	ILE	334	33.788	49.826	29.876	1.00	61.98	AAAA C
ATOM	3168	CG2	ILE	334	32.362	49.355	30.047	1.00	54.04	AAAA C
ATOM	3169	CG1	ILE	334	34.737	49.224	30.915	1.00	60.43	AAAA C
ATOM	3170	CD1	ILE	334	34.346	49.687	32.317	1.00	68.57	AAAA C
ATOM	3171	C	ILE	334	33.271	50.032	27.476	1.00	59.45	AAAA C
ATOM	3172	O	ILE	334	32.726	51.136	27.635	1.00	56.22	AAAA O
ATOM	3173	N	ARG	335	32.919	49.181	26.550	1.00	59.69	AAAA N
ATOM	3175	CA	ARG	335	31.910	49.567	25.573	1.00	73.93	AAAA C
ATOM	3176	CB	ARG	335	32.262	48.903	24.240	1.00	74.44	AAAA C
ATOM	3177	CG	ARG	335	33.729	48.932	23.918	1.00	82.97	AAAA C
ATOM	3178	CD	ARG	335	34.102	49.289	22.500	1.00	86.49	AAAA C
ATOM	3179	NE	ARG	335	34.361	48.040	21.777	1.00	89.83	AAAA N
ATOM	3181	CZ	ARG	335	34.011	47.838	20.496	1.00	93.67	AAAA C
ATOM	3182	NH1	ARG	335	33.409	48.852	19.843	1.00	87.24	AAAA N
ATOM	3185	NH2	ARG	335	34.256	46.674	19.877	1.00	75.31	AAAA N
ATOM	3188	C	ARG	335	30.492	49.233	26.021	1.00	81.52	AAAA C
ATOM	3189	O	ARG	335	29.664	50.115	26.239	1.00	84.11	AAAA O
ATOM	3190	N	ALA	336	30.208	47.953	26.234	1.00	87.51	AAAA N
ATOM	3192	CA	ALA	336	28.878	47.484	26.601	1.00	92.40	AAAA C
ATOM	3193	CB	ALA	336	28.835	45.980	26.633	1.00	94.03	AAAA C
ATOM	3194	C	ALA	336	28.479	48.058	27.953	1.00	96.61	AAAA C
ATOM	3195	O	ALA	336	29.316	48.019	28.855	1.00	96.96	AAAA O
ATOM	3196	N	GLY	337	27.298	48.685	28.039	1.00	99.74	AAAA N
ATOM	3198	CA	GLY	337	26.986	49.385	29.272	1.00	103.11	AAAA C
ATOM	3199	C	GLY	337	25.568	49.303	29.763	1.00	105.51	AAAA C
ATOM	3200	O	GLY	337	24.801	50.267	29.596	1.00	106.64	AAAA O
ATOM	3201	N	ASN	338	25.243	48.146	30.346	1.00	105.41	AAAA N
ATOM	3203	CA	ASN	338	23.886	48.017	30.908	1.00	106.92	AAAA C
ATOM	3204	CB	ASN	338	23.714	46.689	31.624	1.00	109.14	AAAA C
ATOM	3205	CG	ASN	338	24.403	45.544	30.928	1.00	112.30	AAAA C
ATOM	3206	OD1	ASN	338	25.598	45.595	30.625	1.00	117.94	AAAA O
ATOM	3207	ND2	ASN	338	23.604	44.508	30.683	1.00	113.72	AAAA N
ATOM	3210	C	ASN	338	23.790	49.160	31.931	1.00	105.84	AAAA C

Figure 1A-30

ATOM	3311	O	ASN	338	23.544	50.345	51.739	1.00103.97	AAAA O
ATOM	3312	N	ASN	339	24.299	48.762	33.092	1.00105.47	AAAA N
ATOM	3314	CA	ASN	339	24.529	49.740	34.159	1.00107.19	AAAA C
ATOM	3315	CB	ASN	339	23.252	49.915	34.945	1.00109.15	AAAA C
ATOM	3316	CG	ASN	339	22.777	51.351	35.003	0.01107.52	AAAA C
ATOM	3317	OD1	ASN	339	22.715	51.931	36.088	0.01107.49	AAAA O
ATOM	3318	ND2	ASN	339	22.441	51.932	33.859	0.01107.46	AAAA N
ATOM	3321	C	ASN	339	25.697	49.237	35.007	1.00106.33	AAAA C
ATOM	3322	O	ASN	339	25.520	48.390	35.886	1.00108.82	AAAA O
ATOM	3323	N	ILE	340	26.897	49.527	34.510	1.00101.36	AAAA N
ATOM	3325	CA	ILE	340	28.136	49.101	35.139	1.00 97.43	AAAA C
ATOM	3326	CB	ILE	340	29.040	48.354	34.151	1.00 93.65	AAAA C
ATOM	3327	CG2	ILE	340	28.194	47.292	33.499	1.00 99.38	AAAA C
ATOM	3328	CG1	ILE	340	29.726	49.158	33.070	1.00 85.50	AAAA C
ATOM	3329	CD1	ILE	340	28.897	49.634	31.915	1.00 92.53	AAAA C
ATOM	3330	C	ILE	340	28.783	50.357	35.706	1.00 95.32	AAAA C
ATOM	3331	O	ILE	340	29.472	51.099	34.997	1.00 97.86	AAAA O
ATOM	3332	N	ALA	341	28.409	50.739	36.915	1.00 89.89	AAAA N
ATOM	3334	CA	ALA	341	28.892	52.008	37.450	1.00 88.45	AAAA C
ATOM	3335	CB	ALA	341	28.068	53.201	37.006	1.00 84.56	AAAA C
ATOM	3336	C	ALA	341	28.786	51.968	38.970	1.00 85.37	AAAA C
ATOM	3337	O	ALA	341	28.910	52.935	39.690	1.00 86.09	AAAA O
ATOM	3338	N	SER	342	28.204	50.877	39.386	1.00 84.24	AAAA N
ATOM	3340	CA	SER	342	27.910	50.601	40.780	1.00 82.05	AAAA C
ATOM	3341	CB	SER	342	26.426	50.667	41.112	1.00 85.51	AAAA C
ATOM	3342	OG	SER	342	26.145	51.271	42.361	1.00 86.02	AAAA O
ATOM	3344	C	SER	342	28.487	49.196	40.965	1.00 76.62	AAAA C
ATOM	3345	O	SER	342	29.119	48.966	41.964	1.00 71.76	AAAA O
ATOM	3346	N	GLU	343	28.373	48.409	39.905	1.00 76.23	AAAA N
ATOM	3348	CA	GLU	343	29.001	47.109	39.820	1.00 74.59	AAAA C
ATOM	3349	CB	GLU	343	28.595	46.300	38.616	1.00 76.62	AAAA C
ATOM	3350	CG	GLU	343	27.118	46.105	38.316	1.00 85.33	AAAA C
ATOM	3351	CD	GLU	343	26.898	45.121	37.169	1.00 92.76	AAAA C
ATOM	3352	OE1	GLU	343	27.209	43.911	37.310	1.00 96.41	AAAA O
ATOM	3353	OE2	GLU	343	26.423	45.517	36.082	1.00 98.55	AAAA O
ATOM	3354	C	GLU	343	30.525	47.319	39.804	1.00 77.75	AAAA C
ATOM	3355	O	GLU	343	31.273	46.787	40.637	1.00 75.73	AAAA O
ATOM	3356	N	LEU	344	31.022	48.237	38.966	1.00 75.65	AAAA N
ATOM	3358	CA	LEU	344	32.415	48.596	38.839	1.00 72.36	AAAA C
ATOM	3359	CB	LEU	344	32.760	49.697	37.808	1.00 64.33	AAAA C
ATOM	3360	CG	LEU	344	32.687	49.397	36.311	1.00 50.12	AAAA C
ATOM	3361	CD1	LEU	344	33.224	50.577	35.519	1.00 57.00	AAAA C
ATOM	3362	CD2	LEU	344	33.401	48.127	35.905	1.00 51.62	AAAA C
ATOM	3363	C	LEU	344	32.963	49.130	40.174	1.00 69.74	AAAA C
ATOM	3364	O	LEU	344	34.079	48.739	40.551	1.00 69.12	AAAA O
ATOM	3365	N	GLU	345	32.166	49.959	40.822	1.00 63.10	AAAA N
ATOM	3367	CA	GLU	345	32.555	50.591	42.061	1.00 65.42	AAAA C
ATOM	3368	CB	GLU	345	31.592	51.714	42.478	1.00 55.59	AAAA C
ATOM	3369	CG	GLU	345	32.267	52.607	43.486	1.00 68.78	AAAA C
ATOM	3370	CD	GLU	345	31.324	53.374	44.376	1.00 81.31	AAAA C
ATOM	3371	OE1	GLU	345	30.614	54.320	43.976	1.00 85.60	AAAA O
ATOM	3372	OE2	GLU	345	31.237	53.078	45.595	1.00 88.79	AAAA O
ATOM	3373	C	GLU	345	32.706	49.652	43.255	1.00 63.51	AAAA C
ATOM	3374	O	GLU	345	33.501	49.913	44.134	1.00 60.08	AAAA O
ATOM	3375	N	ASN	346	32.151	48.462	43.202	1.00 62.25	AAAA N
ATOM	3377	CA	ASN	346	32.285	47.403	44.173	1.00 63.82	AAAA C
ATOM	3378	CB	ASN	346	31.024	46.498	44.095	1.00 61.66	AAAA C
ATOM	3379	CG	ASN	346	31.110	45.292	45.006	1.00 58.73	AAAA C
ATOM	3380	OD1	ASN	346	31.188	45.252	46.224	1.00 69.11	AAAA O
ATOM	3381	ND2	ASN	346	31.155	44.092	44.444	1.00 51.10	AAAA N
ATOM	3384	C	ASN	346	33.532	46.580	43.870	1.00 63.71	AAAA C
ATOM	3385	O	ASN	346	33.636	45.336	43.905	1.00 65.65	AAAA O
ATOM	3386	N	PHE	347	34.419	47.173	43.066	1.00 63.23	AAAA N
ATOM	3388	CA	PHE	347	35.540	46.411	42.506	1.00 61.39	AAAA C
ATOM	3389	CB	PHE	347	35.123	45.854	41.170	1.00 61.38	AAAA C
ATOM	3390	CG	PHE	347	34.457	44.534	41.142	1.00 65.57	AAAA C
ATOM	3391	CD1	PHE	347	33.090	44.438	40.982	1.00 75.25	AAAA C
ATOM	3392	CD2	PHE	347	35.148	43.351	41.267	1.00 77.15	AAAA C
ATOM	3393	CE1	PHE	347	32.425	43.224	40.951	1.00 75.55	AAAA C
ATOM	3394	CE2	PHE	347	34.512	42.130	41.249	1.00 72.86	AAAA C
ATOM	3395	CZ	PHE	347	33.152	42.051	41.095	1.00 72.74	AAAA C
ATOM	3396	C	PHE	347	36.712	47.375	42.440	1.00 57.70	AAAA C
ATOM	3397	O	PHE	347	37.770	46.820	42.354	1.00 59.92	AAAA O
ATOM	3398	N	MET	348	36.482	48.676	42.319	1.00 50.56	AAAA N
ATOM	3400	CA	MET	348	37.500	49.630	41.964	1.00 42.86	AAAA C
ATOM	3401	CB	MET	348	37.402	50.996	40.493	1.00 31.72	AAAA C
ATOM	3402	CG	MET	348	37.426	48.933	39.471	1.00 33.42	AAAA C
ATOM	3403	SD	MET	348	37.566	49.448	37.732	1.00 44.79	AAAA S
ATOM	3404	CE	MET	348	38.408	50.999	37.791	1.00 59.57	AAAA C
ATOM	3405	C	MET	348	37.368	50.831	42.867	1.00 45.88	AAAA C
ATOM	3406	O	MET	348	38.210	51.772	42.901	1.00 43.33	AAAA O
ATOM	3407	N	GLY	349	36.296	50.783	43.683	1.00 45.30	AAAA N
ATOM	3409	CA	GLY	349	35.990	51.965	44.504	1.00 49.19	AAAA C
ATOM	3410	C	GLY	349	36.980	52.189	45.620	1.00 52.77	AAAA C
ATOM	3411	O	GLY	349	37.033	53.299	46.156	1.00 53.43	AAAA O

Figure 1A-31

ATOM	3312	N	LEU	350	37.791	51.159	45.925	1.00	56.17	AAAA N
ATOM	3314	CA	LEU	350	38.735	51.256	47.021	1.00	58.04	AAAA C
ATOM	3315	CB	LEU	350	38.873	49.949	47.834	1.00	49.00	AAAA C
ATOM	3316	CG	LEU	350	37.971	50.020	49.031	1.00	50.79	AAAA C
ATOM	3317	CD1	LEU	350	37.705	48.680	49.700	1.00	52.92	AAAA C
ATOM	3318	CD2	LEU	350	38.247	51.106	50.038	1.00	56.11	AAAA C
ATOM	3319	C	LEU	350	40.144	51.727	46.685	1.00	61.34	AAAA C
ATOM	3320	O	LEU	350	40.931	51.962	47.619	1.00	63.52	AAAA O
ATOM	3321	N	ILE	351	40.446	51.677	45.372	1.00	57.89	AAAA N
ATOM	3323	CA	ILE	351	41.729	52.088	44.673	1.00	48.69	AAAA C
ATOM	3324	CB	ILE	351	41.814	51.912	43.352	1.00	48.19	AAAA C
ATOM	3325	CG2	ILE	351	43.121	52.416	42.757	1.00	40.01	AAAA C
ATOM	3326	CG1	ILE	351	41.535	50.418	43.059	1.00	36.07	AAAA C
ATOM	3327	CD1	ILE	351	41.172	50.351	41.581	1.00	36.46	AAAA C
ATOM	3328	C	ILE	351	42.031	53.533	45.178	1.00	46.80	AAAA C
ATOM	3329	O	ILE	351	41.367	54.358	44.626	1.00	42.87	AAAA O
ATOM	3330	N	GLU	352	43.002	53.866	46.015	1.00	50.61	AAAA N
ATOM	3332	CA	GLU	352	43.381	55.241	46.248	1.00	51.20	AAAA C
ATOM	3333	CB	GLU	352	43.907	55.353	47.678	1.00	52.12	AAAA C
ATOM	3334	CG	GLU	352	42.912	55.769	48.735	1.00	65.55	AAAA C
ATOM	3335	CD	GLU	352	43.034	54.834	49.947	1.00	71.49	AAAA C
ATOM	3336	OE1	GLU	352	43.881	55.244	50.765	1.00	66.09	AAAA O
ATOM	3337	OE2	GLU	352	42.330	53.799	50.009	1.00	76.07	AAAA O
ATOM	3338	C	GLU	352	44.502	55.751	45.314	1.00	47.43	AAAA C
ATOM	3339	O	GLU	352	44.798	56.951	45.182	1.00	40.38	AAAA O
ATOM	3340	N	VAL	353	45.342	54.838	44.852	1.00	43.54	AAAA N
ATOM	3342	CA	VAL	353	46.512	55.236	44.078	1.00	43.71	AAAA C
ATOM	3343	CB	VAL	353	47.759	55.540	44.911	1.00	45.01	AAAA C
ATOM	3344	CG1	VAL	353	47.766	55.261	46.387	1.00	30.84	AAAA C
ATOM	3345	CG2	VAL	353	48.988	54.844	44.319	1.00	42.55	AAAA C
ATOM	3346	C	VAL	353	46.829	54.233	42.957	1.00	41.41	AAAA C
ATOM	3347	O	VAL	353	46.843	53.003	43.172	1.00	39.19	AAAA O
ATOM	3348	N	VAL	354	47.074	54.855	41.816	1.00	36.31	AAAA N
ATOM	3350	CA	VAL	354	47.586	54.092	40.651	1.00	43.97	AAAA C
ATOM	3351	CB	VAL	354	46.725	54.390	39.407	1.00	40.86	AAAA C
ATOM	3352	CG1	VAL	354	47.347	53.896	38.125	1.00	36.72	AAAA C
ATOM	3353	CG2	VAL	354	45.293	53.849	39.678	1.00	35.35	AAAA C
ATOM	3354	C	VAL	354	49.043	54.510	40.388	1.00	44.56	AAAA C
ATOM	3355	O	VAL	354	49.366	55.718	40.288	1.00	43.32	AAAA O
ATOM	3356	N	THR	355	49.972	53.561	40.431	1.00	43.83	AAAA N
ATOM	3358	CA	THR	355	51.392	53.914	40.284	1.00	44.85	AAAA C
ATOM	3359	CB	THR	355	52.374	52.799	40.653	1.00	42.40	AAAA C
ATOM	3360	OG1	THR	355	52.273	51.744	39.695	1.00	45.30	AAAA O
ATOM	3362	CG2	THR	355	52.210	52.194	42.039	1.00	38.13	AAAA C
ATOM	3363	C	THR	355	51.746	54.339	38.851	1.00	43.84	AAAA C
ATOM	3364	O	THR	355	52.463	55.334	38.697	1.00	44.26	AAAA O
ATOM	3365	N	GLY	356	51.127	53.704	37.870	1.00	41.16	AAAA N
ATOM	3367	CA	GLY	356	51.358	54.073	36.470	1.00	37.91	AAAA C
ATOM	3368	C	GLY	356	50.505	55.204	35.955	1.00	38.07	AAAA C
ATOM	3369	O	GLY	356	50.364	56.261	36.615	1.00	34.65	AAAA O
ATOM	3370	N	TYR	357	49.910	55.004	34.800	1.00	38.47	AAAA N
ATOM	3372	CA	TYR	357	48.982	55.973	34.205	1.00	38.03	AAAA C
ATOM	3373	CB	TYR	357	49.557	56.343	32.805	1.00	31.44	AAAA C
ATOM	3374	CG	TYR	357	49.473	55.219	31.812	1.00	33.04	AAAA C
ATOM	3375	CD1	TYR	357	48.333	54.842	31.077	1.00	32.86	AAAA C
ATOM	3376	CE1	TYR	357	48.352	53.779	30.175	1.00	32.83	AAAA C
ATOM	3377	CD2	TYR	357	50.639	54.465	31.606	1.00	34.28	AAAA C
ATOM	3378	CE2	TYR	357	50.706	53.402	30.720	1.00	32.51	AAAA C
ATOM	3379	CZ	TYR	357	49.552	53.068	30.007	1.00	37.26	AAAA C
ATOM	3380	OH	TYR	357	49.726	51.997	29.166	1.00	35.85	AAAA O
ATOM	3382	C	TYR	357	47.582	55.368	34.150	1.00	38.55	AAAA C
ATOM	3383	O	TYR	357	47.458	54.127	34.088	1.00	36.11	AAAA O
ATOM	3384	N	VAL	358	46.593	56.216	33.814	1.00	40.98	AAAA N
ATOM	3386	CA	VAL	358	45.197	55.798	33.639	1.00	38.90	AAAA C
ATOM	3387	CB	VAL	358	44.211	56.502	34.610	1.00	49.15	AAAA C
ATOM	3388	CG1	VAL	358	42.815	55.883	34.484	1.00	33.12	AAAA C
ATOM	3389	CG2	VAL	358	44.748	56.437	36.043	1.00	29.20	AAAA C
ATOM	3390	C	VAL	358	44.760	56.194	32.234	1.00	35.64	AAAA C
ATOM	3391	O	VAL	358	44.792	57.358	31.885	1.00	34.58	AAAA O
ATOM	3392	N	LYS	359	44.387	55.188	31.461	1.00	36.00	AAAA N
ATOM	3394	CA	LYS	359	43.898	55.419	30.117	1.00	41.27	AAAA C
ATOM	3395	CB	LYS	359	44.845	54.707	29.174	1.00	37.40	AAAA C
ATOM	3396	CG	LYS	359	44.340	54.473	27.770	1.00	45.19	AAAA C
ATOM	3397	CD	LYS	359	45.040	55.317	26.750	1.00	43.40	AAAA C
ATOM	3398	CE	LYS	359	45.958	54.402	25.986	1.00	43.56	AAAA C
ATOM	3399	NZ	LYS	359	45.416	53.937	24.680	1.00	47.98	AAAA N
ATOM	3403	C	LYS	359	42.423	54.979	29.939	1.00	42.14	AAAA C
ATOM	3404	O	LYS	359	42.056	53.791	30.006	1.00	40.40	AAAA O
ATOM	3405	N	ILE	360	41.602	55.974	29.572	1.00	37.16	AAAA N
ATOM	3407	CA	ILE	360	40.164	55.742	29.334	1.00	40.92	AAAA C
ATOM	3408	CB	ILE	360	39.297	56.804	30.046	1.00	38.10	AAAA C
ATOM	3409	CG2	ILE	360	37.887	56.277	29.932	1.00	39.42	AAAA C
ATOM	3410	CG1	ILE	360	39.769	57.111	31.481	1.00	28.54	AAAA C
ATOM	3411	CD1	ILE	360	39.423	56.037	32.491	1.00	33.16	AAAA C
ATOM	3412	C	ILE	360	39.888	55.837	27.831	1.00	39.49	AAAA C

Figure 1A-32

ATOM	3413	O	ILE	360	40.011	56.942	27.235	1.00	37.32	AAAA O
ATOM	3414	N	ARG	361	39.567	54.721	27.221	1.00	31.34	AAAA N
ATOM	3416	CA	ARG	361	39.472	54.782	25.744	1.00	41.24	AAAA C
ATOM	3417	CB	ARG	361	40.783	54.213	25.148	1.00	47.92	AAAA C
ATOM	3418	CG	ARG	361	40.805	54.203	23.646	1.00	50.39	AAAA C
ATOM	3419	CD	ARG	361	41.943	53.357	23.116	1.00	51.36	AAAA C
ATOM	3420	NE	ARG	361	41.473	51.974	23.263	1.00	50.97	AAAA N
ATOM	3422	CZ	ARG	361	42.297	50.962	23.490	1.00	55.78	AAAA C
ATOM	3423	NH1	ARG	361	43.610	51.074	23.616	1.00	51.62	AAAA N
ATOM	3426	NH2	ARG	361	41.834	49.719	23.631	1.00	54.52	AAAA N
ATOM	3429	C	ARG	361	38.382	53.866	25.246	1.00	42.06	AAAA C
ATOM	3430	O	ARG	361	38.336	52.661	25.499	1.00	38.93	AAAA O
ATOM	3431	N	HIS	362	37.514	54.342	24.373	1.00	46.19	AAAA N
ATOM	3433	CA	HIS	362	36.372	53.555	23.885	1.00	49.34	AAAA C
ATOM	3434	CB	HIS	362	37.000	52.300	23.266	1.00	49.94	AAAA C
ATOM	3435	CG	HIS	362	37.849	52.610	22.084	1.00	42.78	AAAA C
ATOM	3436	CD2	HIS	362	38.049	53.765	21.411	1.00	48.32	AAAA C
ATOM	3437	ND1	HIS	362	38.628	51.676	21.469	1.00	43.59	AAAA N
ATOM	3439	CE1	HIS	362	39.256	52.247	20.465	1.00	46.01	AAAA C
ATOM	3440	NE2	HIS	362	38.923	53.515	20.408	1.00	49.22	AAAA N
ATOM	3442	C	HIS	362	35.295	53.113	24.913	1.00	50.32	AAAA C
ATOM	3443	O	HIS	362	34.686	52.030	24.795	1.00	41.31	AAAA O
ATOM	3444	N	SER	363	35.222	53.875	26.013	1.00	46.96	AAAA N
ATOM	3446	CA	SER	363	34.402	53.456	27.139	1.00	52.19	AAAA C
ATOM	3447	CB	SER	363	35.231	53.837	28.400	1.00	53.73	AAAA C
ATOM	3448	OG	SER	363	35.713	52.558	28.816	1.00	41.72	AAAA O
ATOM	3450	C	SER	363	33.005	54.072	27.046	1.00	49.09	AAAA C
ATOM	3451	O	SER	363	32.653	55.040	27.694	1.00	37.49	AAAA O
ATOM	3452	N	HIS	364	32.243	53.577	26.058	1.00	52.25	AAAA N
ATOM	3454	CA	HIS	364	30.954	54.173	25.717	1.00	53.66	AAAA C
ATOM	3455	C	HIS	364	29.879	53.937	26.760	1.00	48.77	AAAA C
ATOM	3456	O	HIS	364	29.297	54.899	27.280	1.00	51.44	AAAA O
ATOM	3457	CB	HIS	364	30.485	53.699	24.348	1.00	49.83	AAAA C
ATOM	3458	CG	HIS	364	31.493	54.182	23.338	1.00	51.51	AAAA C
ATOM	3459	ND1	HIS	364	31.870	55.502	23.156	1.00	44.83	AAAA N
ATOM	3460	CE1	HIS	364	32.798	55.533	22.214	1.00	28.57	AAAA C
ATOM	3461	CD2	HIS	364	32.194	53.393	22.472	1.00	38.62	AAAA C
ATOM	3462	NE2	HIS	364	32.992	54.274	21.810	1.00	41.44	AAAA N
ATOM	3464	N	ALA	365	29.949	52.819	27.427	1.00	47.53	AAAA N
ATOM	3466	CA	ALA	365	29.211	52.488	28.621	1.00	44.41	AAAA C
ATOM	3467	CB	ALA	365	29.678	51.133	29.150	1.00	40.28	AAAA C
ATOM	3468	C	ALA	365	29.318	53.473	29.768	1.00	44.70	AAAA C
ATOM	3469	O	ALA	365	28.576	53.206	30.726	1.00	45.28	AAAA O
ATOM	3470	N	LEU	366	30.158	54.517	29.762	1.00	40.80	AAAA N
ATOM	3472	CA	LEU	366	30.415	55.243	30.968	1.00	42.21	AAAA C
ATOM	3473	CB	LEU	366	31.885	55.241	31.350	1.00	43.78	AAAA C
ATOM	3474	CG	LEU	366	32.740	54.037	31.667	1.00	51.52	AAAA C
ATOM	3475	CD1	LEU	366	34.192	54.373	32.043	1.00	51.77	AAAA C
ATOM	3476	CD2	LEU	366	32.118	53.305	32.834	1.00	51.17	AAAA C
ATOM	3477	C	LEU	366	29.974	56.687	30.896	1.00	46.36	AAAA C
ATOM	3478	O	LEU	366	30.305	57.248	29.849	1.00	48.40	AAAA O
ATOM	3479	N	VAL	367	29.521	57.275	32.015	1.00	43.68	AAAA N
ATOM	3481	CA	VAL	367	29.072	58.675	31.940	1.00	44.18	AAAA C
ATOM	3482	CB	VAL	367	27.557	58.727	32.376	1.00	48.80	AAAA C
ATOM	3483	CG1	VAL	367	26.923	60.073	32.571	1.00	41.69	AAAA C
ATOM	3484	CG2	VAL	367	26.697	57.949	31.365	1.00	34.00	AAAA C
ATOM	3485	C	VAL	367	29.923	59.518	32.845	1.00	44.90	AAAA C
ATOM	3486	O	VAL	367	29.965	60.751	32.720	1.00	44.75	AAAA O
ATOM	3487	N	SER	368	30.591	58.818	33.757	1.00	48.72	AAAA N
ATOM	3489	CA	SER	368	31.487	59.465	34.742	1.00	52.70	AAAA C
ATOM	3490	CB	SER	368	30.658	59.706	36.000	1.00	55.32	AAAA C
ATOM	3491	OG	SER	368	31.300	60.298	37.091	1.00	64.86	AAAA O
ATOM	3493	C	SER	368	32.590	58.497	35.179	1.00	52.76	AAAA C
ATOM	3494	O	SER	368	32.352	57.299	34.976	1.00	48.99	AAAA O
ATOM	3495	N	LEU	369	33.631	59.012	35.831	1.00	53.86	AAAA N
ATOM	3497	CA	LEU	369	34.716	58.129	36.274	1.00	60.15	AAAA C
ATOM	3498	CB	LEU	369	36.073	58.630	35.784	1.00	55.91	AAAA C
ATOM	3499	CG	LEU	369	36.325	58.736	34.271	1.00	45.96	AAAA C
ATOM	3500	CD1	LEU	369	37.669	59.428	34.154	1.00	53.97	AAAA C
ATOM	3501	CD2	LEU	369	36.297	57.384	33.619	1.00	38.77	AAAA C
ATOM	3502	C	LEU	369	34.645	58.036	37.811	1.00	62.52	AAAA C
ATOM	3503	O	LEU	369	35.569	57.700	38.595	1.00	59.33	AAAA O
ATOM	3504	N	SER	370	33.437	58.401	38.285	1.00	56.26	AAAA N
ATOM	3506	CA	SER	370	33.089	58.431	39.690	1.00	53.88	AAAA C
ATOM	3507	CB	SER	370	31.673	59.052	39.816	1.00	57.56	AAAA C
ATOM	3508	OG	SER	370	30.771	58.061	39.261	1.00	69.12	AAAA O
ATOM	3510	C	SER	370	33.060	57.085	40.412	1.00	47.97	AAAA C
ATOM	3511	O	SER	370	33.228	56.943	41.596	1.00	41.93	AAAA O
ATOM	3512	N	PHE	371	32.967	55.936	39.792	1.00	45.48	AAAA N
ATOM	3514	CA	PHE	371	33.223	54.643	40.356	1.00	46.29	AAAA C
ATOM	3515	CB	PHE	371	32.952	53.596	39.287	1.00	43.53	AAAA C
ATOM	3516	CG	PHE	371	33.724	53.629	38.012	1.00	56.45	AAAA C
ATOM	3517	CD1	PHE	371	34.805	52.807	37.764	1.00	58.95	AAAA C
ATOM	3518	CD2	PHE	371	33.371	54.515	37.004	1.00	53.92	AAAA C
ATOM	3519	CE1	PHE	371	35.498	52.842	36.570	1.00	59.56	AAAA C

Figure 1A-33

ATOM	3520	CE2	PHE	371	34.048	54.546	35.917	1.00	56.49	AAAA C
ATOM	3521	CZ	PHE	371	35.119	53.716	35.579	1.00	56.39	AAAA C
ATOM	3522	C	PHE	371	34.654	54.467	40.895	1.00	54.84	AAAA C
ATOM	3523	O	PHE	371	35.005	53.592	41.728	1.00	52.23	AAAA O
ATOM	3524	N	LEU	372	35.633	55.309	40.519	1.00	50.17	AAAA N
ATOM	3526	CA	LEU	372	36.928	55.395	41.109	1.00	46.25	AAAA C
ATOM	3527	CB	LEU	372	38.171	55.812	40.276	1.00	44.82	AAAA C
ATOM	3528	CG	LEU	372	38.411	54.800	39.114	1.00	36.78	AAAA C
ATOM	3529	CD1	LEU	372	38.853	55.643	37.934	1.00	45.04	AAAA C
ATOM	3530	CD2	LEU	372	39.260	53.657	39.565	1.00	35.55	AAAA C
ATOM	3531	C	LEU	372	36.715	56.392	42.213	1.00	42.26	AAAA C
ATOM	3532	O	LEU	372	37.224	57.507	42.364	1.00	38.37	AAAA O
ATOM	3533	N	LYS	373	35.970	55.862	43.192	1.00	47.06	AAAA N
ATOM	3535	CA	LYS	373	35.527	56.509	44.415	1.00	50.19	AAAA C
ATOM	3536	CB	LYS	373	34.546	55.521	45.077	1.00	56.74	AAAA C
ATOM	3537	CG	LYS	373	33.645	56.162	46.119	1.00	59.64	AAAA C
ATOM	3538	CD	LYS	373	32.529	56.956	45.441	0.01	60.17	AAAA C
ATOM	3539	CE	LYS	373	31.674	57.687	46.460	0.01	60.45	AAAA C
ATOM	3540	NZ	LYS	373	31.083	58.933	45.899	0.01	60.38	AAAA N
ATOM	3544	C	LYS	373	36.646	56.863	45.366	1.00	49.72	AAAA C
ATOM	3545	O	LYS	373	36.636	57.960	45.907	1.00	42.42	AAAA O
ATOM	3546	N	ASN	374	37.657	55.986	45.513	1.00	54.43	AAAA N
ATOM	3548	CA	ASN	374	38.765	56.352	46.410	1.00	59.92	AAAA C
ATOM	3549	CB	ASN	374	39.080	55.154	47.314	1.00	63.16	AAAA C
ATOM	3550	CG	ASN	374	38.009	54.978	48.396	1.00	64.53	AAAA C
ATOM	3551	OD1	ASN	374	37.892	53.972	49.096	1.00	66.40	AAAA O
ATOM	3552	ND2	ASN	374	37.160	55.965	48.570	1.00	62.88	AAAA N
ATOM	3555	C	ASN	374	40.043	56.892	45.786	1.00	62.35	AAAA C
ATOM	3556	O	ASN	374	41.031	57.223	46.479	1.00	63.08	AAAA O
ATOM	3557	N	LEU	375	40.091	56.893	44.438	1.00	58.34	AAAA N
ATOM	3559	CA	LEU	375	41.305	57.374	43.795	1.00	54.73	AAAA C
ATOM	3560	CB	LEU	375	41.099	57.359	42.288	1.00	56.41	AAAA C
ATOM	3561	CG	LEU	375	42.396	57.422	41.459	1.00	54.12	AAAA C
ATOM	3562	CD1	LEU	375	43.135	56.112	41.689	1.00	37.88	AAAA C
ATOM	3563	CD2	LEU	375	42.030	57.796	40.041	1.00	40.97	AAAA C
ATOM	3564	C	LEU	375	41.712	58.754	44.245	1.00	52.37	AAAA C
ATOM	3565	O	LEU	375	41.151	59.777	43.877	1.00	52.11	AAAA O
ATOM	3566	N	ARG	376	42.801	58.874	44.982	1.00	55.16	AAAA N
ATOM	3568	CA	ARG	376	43.320	60.155	45.434	1.00	55.45	AAAA C
ATOM	3569	CB	ARG	376	43.706	60.222	46.928	1.00	58.68	AAAA C
ATOM	3570	CG	ARG	376	44.288	58.907	47.415	1.00	69.10	AAAA C
ATOM	3571	CD	ARG	376	44.286	58.817	48.944	1.00	81.17	AAAA C
ATOM	3572	NE	ARG	376	45.377	57.926	49.410	1.00	84.46	AAAA N
ATOM	3574	CZ	ARG	376	46.618	58.380	49.598	1.00	85.64	AAAA C
ATOM	3575	NH1	ARG	376	46.966	59.645	49.383	1.00	81.84	AAAA N
ATOM	3578	NH2	ARG	376	47.571	57.548	50.012	1.00	94.15	AAAA N
ATOM	3581	C	ARG	376	44.556	60.544	44.633	1.00	50.16	AAAA C
ATOM	3582	O	ARG	376	44.746	61.728	44.465	1.00	44.25	AAAA O
ATOM	3583	N	LEU	377	45.375	59.578	44.219	1.00	50.99	AAAA N
ATOM	3585	CA	LEU	377	46.526	59.942	43.379	1.00	49.40	AAAA C
ATOM	3586	CB	LEU	377	47.596	60.411	44.329	1.00	64.72	AAAA C
ATOM	3587	CG	LEU	377	48.806	59.577	44.667	1.00	70.76	AAAA C
ATOM	3588	CD1	LEU	377	50.031	60.157	43.954	1.00	63.32	AAAA C
ATOM	3589	CD2	LEU	377	49.010	59.696	46.179	1.00	68.60	AAAA C
ATOM	3590	C	LEU	377	47.043	59.022	42.311	1.00	46.33	AAAA C
ATOM	3591	O	LEU	377	46.868	57.788	42.286	1.00	45.17	AAAA O
ATOM	3592	N	ILE	378	47.448	59.675	41.199	1.00	45.12	AAAA N
ATOM	3594	CA	ILE	378	48.042	58.976	40.042	1.00	49.10	AAAA C
ATOM	3595	CB	ILE	378	47.342	59.303	38.724	1.00	46.36	AAAA C
ATOM	3596	CG2	ILE	378	48.115	58.696	37.574	1.00	34.36	AAAA C
ATOM	3597	CG1	ILE	378	45.871	58.862	38.829	1.00	38.59	AAAA C
ATOM	3598	CD1	ILE	378	44.999	59.515	37.765	1.00	37.18	AAAA C
ATOM	3599	C	ILE	378	49.524	59.381	40.003	1.00	49.87	AAAA C
ATOM	3600	O	ILE	378	49.801	60.595	40.040	1.00	44.72	AAAA O
ATOM	3601	N	LEU	379	50.454	58.423	40.067	1.00	49.97	AAAA N
ATOM	3603	CA	LEU	379	51.866	58.712	40.344	1.00	48.48	AAAA C
ATOM	3604	CB	LEU	379	52.575	57.531	41.054	1.00	48.44	AAAA C
ATOM	3605	CG	LEU	379	52.234	57.363	42.554	1.00	50.28	AAAA C
ATOM	3606	CD1	LEU	379	52.926	56.187	43.217	1.00	39.89	AAAA C
ATOM	3607	CD2	LEU	379	52.616	58.625	43.300	1.00	42.89	AAAA C
ATOM	3608	C	LEU	379	52.699	59.019	39.080	1.00	50.94	AAAA C
ATOM	3609	O	LEU	379	53.576	59.788	39.139	1.00	54.23	AAAA O
ATOM	3610	N	GLY	380	52.175	58.423	37.972	1.00	48.67	AAAA N
ATOM	3612	CA	GLY	380	52.931	58.715	36.702	1.00	49.94	AAAA C
ATOM	3613	C	GLY	380	54.249	58.156	36.624	1.00	52.70	AAAA C
ATOM	3614	O	GLY	380	55.026	58.657	35.803	1.00	49.94	AAAA O
ATOM	3615	N	GLU	381	54.549	57.033	37.272	1.00	52.51	AAAA N
ATOM	3617	CA	GLU	381	55.849	56.386	37.243	1.00	52.33	AAAA C
ATOM	3618	CB	GLU	381	56.055	55.310	38.323	1.00	45.22	AAAA C
ATOM	3619	CG	GLU	381	55.402	55.779	39.636	1.00	52.91	AAAA C
ATOM	3620	CD	GLU	381	56.050	55.192	40.873	1.00	42.11	AAAA C
ATOM	3621	OE1	GLU	381	56.160	53.966	40.890	1.00	40.26	AAAA O
ATOM	3622	OE2	GLU	381	56.379	56.014	41.754	1.00	51.32	AAAA O
ATOM	3623	C	GLU	381	56.078	55.784	35.859	1.00	55.86	AAAA C
ATOM	3624	O	GLU	381	57.216	55.652	35.349	1.00	54.61	AAAA O

Figure 1A-34

ATOM	3625	H	GLU	382	54.980	55.449	35.157	1.00	53.56	AAAA H
ATOM	3627	CA	GLU	382	55.091	55.018	33.766	1.00	48.15	AAAA C
ATOM	3628	CB	GLU	382	55.051	53.550	33.532	1.00	35.27	AAAA C
ATOM	3629	CG	GLU	382	54.739	53.225	32.051	1.00	49.69	AAAA C
ATOM	3630	CD	GLU	382	54.676	51.719	31.807	1.00	56.45	AAAA C
ATOM	3631	OE1	GLU	382	55.062	50.924	32.705	1.00	61.66	AAAA O
ATOM	3632	OE2	GLU	382	54.264	51.201	30.745	1.00	57.69	AAAA O
ATOM	3633	C	GLU	382	54.006	55.732	32.973	1.00	50.84	AAAA C
ATOM	3634	O	GLU	382	53.097	56.282	33.598	1.00	49.44	AAAA O
ATOM	3635	N	GLN	383	54.347	56.256	31.780	1.00	52.25	AAAA N
ATOM	3637	CA	GLN	383	53.498	57.153	31.016	1.00	40.15	AAAA C
ATOM	3638	CB	GLN	383	53.914	58.609	31.155	1.00	28.50	AAAA C
ATOM	3639	CG	GLN	383	54.489	58.909	32.542	1.00	31.10	AAAA C
ATOM	3640	CD	GLN	383	54.950	60.301	32.752	1.00	33.19	AAAA C
ATOM	3641	OE1	GLN	383	55.186	60.840	31.683	1.00	40.34	AAAA O
ATOM	3642	NE2	GLN	383	55.043	60.943	33.934	1.00	36.30	AAAA N
ATOM	3645	C	GLN	383	53.426	56.744	29.563	1.00	40.15	AAAA C
ATOM	3646	O	GLN	383	54.131	55.858	29.139	1.00	43.45	AAAA O
ATOM	3647	N	LEU	384	52.375	57.195	28.860	1.00	42.54	AAAA N
ATOM	3649	CA	LEU	384	52.257	56.889	27.443	1.00	43.24	AAAA C
ATOM	3650	CB	LEU	384	50.814	57.011	26.949	1.00	43.79	AAAA C
ATOM	3651	CG	LEU	384	49.818	56.235	27.861	1.00	41.21	AAAA C
ATOM	3652	CD1	LEU	384	48.611	57.095	28.221	1.00	33.99	AAAA C
ATOM	3653	CD2	LEU	384	49.405	54.968	27.149	1.00	33.20	AAAA C
ATOM	3654	C	LEU	384	53.204	57.809	26.672	1.00	40.51	AAAA C
ATOM	3655	O	LEU	384	53.582	58.872	27.177	1.00	29.66	AAAA O
ATOM	3656	N	GLU	385	53.659	57.319	25.531	1.00	45.22	AAAA N
ATOM	3658	CA	GLU	385	54.410	58.116	24.570	1.00	49.98	AAAA C
ATOM	3659	CB	GLU	385	54.424	57.475	23.174	1.00	60.50	AAAA C
ATOM	3660	CG	GLU	385	55.045	56.095	23.106	1.00	68.76	AAAA C
ATOM	3661	CD	GLU	385	54.195	54.951	23.592	1.00	72.07	AAAA C
ATOM	3662	OE1	GLU	385	53.150	55.213	24.244	1.00	81.88	AAAA O
ATOM	3663	OE2	GLU	385	54.565	53.786	23.301	1.00	73.13	AAAA O
ATOM	3664	C	GLU	385	53.828	59.515	24.450	1.00	47.41	AAAA C
ATOM	3665	O	GLU	385	52.635	59.706	24.184	1.00	54.43	AAAA O
ATOM	3666	N	GLY	386	54.614	60.470	24.902	1.00	43.69	AAAA N
ATOM	3668	CA	GLY	386	54.181	61.870	24.897	1.00	40.34	AAAA C
ATOM	3669	C	GLY	386	54.286	62.449	26.308	1.00	40.65	AAAA C
ATOM	3670	O	GLY	386	53.930	63.615	26.491	1.00	39.75	AAAA O
ATOM	3671	N	ASN	387	54.441	61.537	27.272	1.00	40.75	AAAA N
ATOM	3673	CA	ASN	387	54.479	61.912	28.675	1.00	49.18	AAAA C
ATOM	3674	CB	ASN	387	55.500	63.084	28.874	1.00	44.41	AAAA C
ATOM	3675	CG	ASN	387	56.925	62.541	28.722	1.00	61.51	AAAA C
ATOM	3676	OD1	ASN	387	57.199	61.313	28.677	1.00	57.85	AAAA O
ATOM	3677	ND2	ASN	387	58.063	63.251	28.592	1.00	61.96	AAAA N
ATOM	3680	C	ASN	387	53.095	62.100	29.299	1.00	48.46	AAAA C
ATOM	3681	O	ASN	387	52.836	62.891	30.218	1.00	48.99	AAAA O
ATOM	3682	N	TYR	388	52.214	61.116	29.058	1.00	46.29	AAAA N
ATOM	3684	CA	TYR	388	50.846	61.199	29.540	1.00	45.09	AAAA C
ATOM	3685	CB	TYR	388	49.823	60.957	28.399	1.00	40.70	AAAA C
ATOM	3686	CG	TYR	388	49.925	62.056	27.373	1.00	42.24	AAAA C
ATOM	3687	CD1	TYR	389	50.343	61.854	26.064	1.00	44.38	AAAA C
ATOM	3688	CE1	TYR	388	50.401	62.885	25.157	1.00	35.51	AAAA C
ATOM	3689	CD2	TYR	388	49.625	63.356	27.709	1.00	44.67	AAAA C
ATOM	3690	CE2	TYR	388	49.699	64.428	26.830	1.00	38.14	AAAA C
ATOM	3691	CZ	TYR	388	50.087	64.148	25.555	1.00	41.27	AAAA C
ATOM	3692	OH	TYR	388	50.151	65.181	24.604	1.00	50.18	AAAA O
ATOM	3694	C	TYR	388	50.563	60.288	30.714	1.00	41.88	AAAA C
ATOM	3695	O	TYR	388	50.727	59.092	30.511	1.00	32.99	AAAA O
ATOM	3696	N	SER	389	50.020	60.917	31.763	1.00	45.42	AAAA N
ATOM	3698	CA	SER	389	49.591	60.131	32.931	1.00	50.13	AAAA C
ATOM	3699	CB	SER	389	49.798	60.894	34.261	1.00	45.57	AAAA C
ATOM	3700	OG	SER	389	51.185	60.899	34.504	1.00	51.11	AAAA O
ATOM	3702	C	SER	389	48.097	59.813	32.804	1.00	48.11	AAAA C
ATOM	3703	O	SER	389	47.686	58.792	33.336	1.00	49.25	AAAA O
ATOM	3704	N	PHE	390	47.321	60.685	32.196	1.00	42.56	AAAA N
ATOM	3706	CA	PHE	390	45.867	60.595	32.146	1.00	40.76	AAAA C
ATOM	3707	CB	PHE	390	45.241	61.581	33.139	1.00	44.80	AAAA C
ATOM	3708	CG	PHE	390	45.764	61.358	33.328	1.00	40.53	AAAA C
ATOM	3709	CD1	PHE	390	43.406	60.273	34.089	1.00	40.80	AAAA C
ATOM	3710	CD2	PHE	390	42.769	62.157	32.748	1.00	35.59	AAAA C
ATOM	3711	CE1	PHE	390	42.050	59.985	34.312	1.00	47.09	AAAA C
ATOM	3712	CE2	PHE	390	41.454	61.824	32.965	1.00	44.50	AAAA C
ATOM	3713	CZ	PHE	390	41.063	60.745	33.739	1.00	34.54	AAAA C
ATOM	3714	C	PHE	390	45.372	60.829	30.720	1.00	38.54	AAAA C
ATOM	3715	O	PHE	390	45.542	61.918	30.126	1.00	40.29	AAAA O
ATOM	3716	N	TYR	391	44.819	59.818	30.096	1.00	33.48	AAAA N
ATOM	3718	CA	TYR	391	44.596	59.782	28.663	1.00	38.58	AAAA C
ATOM	3719	CB	TYR	391	45.579	58.871	27.972	1.00	38.95	AAAA C
ATOM	3720	CG	TYR	391	45.760	59.006	26.503	1.00	44.54	AAAA C
ATOM	3721	CD1	TYR	391	46.822	59.815	26.052	1.00	47.14	AAAA C
ATOM	3722	CE1	TYR	391	47.057	59.993	24.722	1.00	46.03	AAAA C
ATOM	3723	CD2	TYR	391	44.927	58.390	25.584	1.00	46.94	AAAA C
ATOM	3724	CE2	TYR	391	45.157	58.569	24.242	1.00	47.45	AAAA C
ATOM	3725	CZ	TYR	391	46.207	59.356	23.830	1.00	45.84	AAAA C

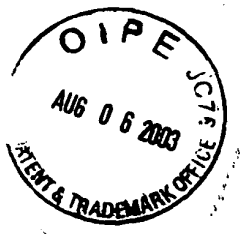
Figure 1A-35

ATOM	3726	CB	TYR	391	46.374	59.492	22.491	1.00	44.78	AAAA C
ATOM	3728	C	TYR	391	43.194	59.232	29.349	1.00	39.74	AAAA C
ATOM	3729	O	TYR	391	42.841	58.103	29.739	1.00	38.49	AAAA O
ATOM	3730	N	VAL	392	42.417	60.158	27.779	1.00	37.07	AAAA N
ATOM	3732	CA	VAL	392	40.958	59.874	27.603	1.00	39.52	AAAA C
ATOM	3733	CB	VAL	392	40.075	60.880	28.440	1.00	41.12	AAAA C
ATOM	3734	CG1	VAL	392	38.612	60.464	28.472	1.00	37.96	AAAA C
ATOM	3735	CG2	VAL	392	40.666	61.041	29.841	1.00	33.19	AAAA C
ATOM	3736	C	VAL	392	40.531	60.092	26.182	1.00	31.08	AAAA C
ATOM	3737	O	VAL	392	40.508	61.227	25.904	1.00	34.71	AAAA O
ATOM	3738	N	LEU	393	40.299	59.113	25.383	1.00	34.62	AAAA N
ATOM	3740	CA	LEU	393	39.948	59.259	23.977	1.00	38.12	AAAA C
ATOM	3741	CB	LEU	393	41.200	59.036	23.096	1.00	42.49	AAAA C
ATOM	3742	CG	LEU	393	41.023	58.649	21.586	1.00	26.48	AAAA C
ATOM	3743	CD1	LEU	393	41.128	59.879	20.753	1.00	26.57	AAAA C
ATOM	3744	CD2	LEU	393	42.078	57.589	21.244	1.00	29.98	AAAA C
ATOM	3745	C	LEU	393	38.821	58.375	23.492	1.00	39.15	AAAA C
ATOM	3746	O	LEU	393	38.760	57.173	23.799	1.00	37.90	AAAA O
ATOM	3747	N	ASP	394	38.015	58.973	22.505	1.00	43.38	AAAA N
ATOM	3749	CA	ASP	394	36.888	58.215	21.975	1.00	44.77	AAAA C
ATOM	3750	CB	ASP	394	37.445	57.073	21.120	1.00	44.80	AAAA C
ATOM	3751	CG	ASP	394	36.466	56.477	20.156	1.00	47.14	AAAA C
ATOM	3752	OD1	ASP	394	36.750	55.577	19.333	1.00	52.91	AAAA O
ATOM	3753	OD2	ASP	394	35.311	56.948	20.180	1.00	49.27	AAAA O
ATOM	3754	C	ASP	394	35.936	57.619	23.021	1.00	43.17	AAAA C
ATOM	3755	O	ASP	394	35.831	56.385	23.212	1.00	43.51	AAAA O
ATOM	3756	N	ASN	395	35.299	58.495	23.746	1.00	39.90	AAAA N
ATOM	3758	CA	ASN	395	34.305	58.158	24.776	1.00	46.30	AAAA C
ATOM	3759	CB	ASN	395	34.804	58.512	26.212	1.00	42.96	AAAA C
ATOM	3760	CG	ASN	395	35.992	57.619	26.579	1.00	36.92	AAAA C
ATOM	3761	OD1	ASN	395	36.013	56.394	26.796	1.00	21.65	AAAA O
ATOM	3762	ND2	ASN	395	37.075	58.409	26.559	1.00	27.87	AAAA N
ATOM	3765	C	ASN	395	32.932	58.816	24.541	1.00	40.44	AAAA C
ATOM	3766	O	ASN	395	32.749	59.982	24.882	1.00	37.06	AAAA O
ATOM	3767	N	GLN	396	32.073	58.055	23.877	1.00	46.74	AAAA N
ATOM	3769	CA	GLN	396	30.771	58.582	23.421	1.00	52.93	AAAA C
ATOM	3770	CB	GLN	396	29.848	57.567	22.744	1.00	52.29	AAAA C
ATOM	3771	CG	GLN	396	30.173	57.405	21.257	1.00	46.42	AAAA C
ATOM	3772	CD	GLN	396	29.817	55.991	20.840	1.00	55.21	AAAA C
ATOM	3773	OE1	GLN	396	28.835	55.421	21.312	1.00	61.17	AAAA O
ATOM	3774	NE2	GLN	396	30.620	55.411	19.971	1.00	55.79	AAAA N
ATOM	3777	C	GLN	396	29.874	59.224	24.458	1.00	48.64	AAAA C
ATOM	3778	O	GLN	396	29.407	60.287	24.113	1.00	51.63	AAAA O
ATOM	3779	N	ASN	397	29.717	58.681	25.633	1.00	48.95	AAAA N
ATOM	3781	CA	ASN	397	28.783	59.196	26.632	1.00	51.72	AAAA C
ATOM	3782	CB	ASN	397	27.969	57.959	27.093	1.00	35.94	AAAA C
ATOM	3783	CG	ASN	397	27.231	57.430	25.860	1.00	49.09	AAAA C
ATOM	3784	OD1	ASN	397	26.591	58.304	25.229	1.00	49.32	AAAA O
ATOM	3785	ND2	ASN	397	27.258	56.175	25.431	1.00	43.31	AAAA N
ATOM	3788	C	ASN	397	29.367	59.945	27.800	1.00	52.98	AAAA C
ATOM	3789	O	ASN	397	28.586	60.344	28.627	1.00	53.33	AAAA O
ATOM	3790	N	LEU	398	30.682	59.990	28.002	1.00	55.73	AAAA N
ATOM	3792	CA	LEU	398	31.312	60.550	29.179	1.00	52.12	AAAA C
ATOM	3793	CB	LEU	398	32.927	60.389	29.149	1.00	48.47	AAAA C
ATOM	3794	CG	LEU	398	33.606	60.283	30.460	1.00	41.81	AAAA C
ATOM	3795	CD1	LEU	398	33.417	58.939	31.136	1.00	40.35	AAAA C
ATOM	3796	CD2	LEU	398	35.070	60.608	30.082	1.00	39.03	AAAA C
ATOM	3797	C	LEU	398	30.923	61.995	29.353	1.00	52.35	AAAA C
ATOM	3798	O	LEU	398	31.422	62.909	28.681	1.00	49.91	AAAA O
ATOM	3799	N	GLN	399	30.241	62.225	30.469	1.00	58.76	AAAA N
ATOM	3801	CA	GLN	399	29.688	63.558	30.796	1.00	60.03	AAAA C
ATOM	3802	CB	GLN	399	28.236	63.331	31.262	1.00	59.55	AAAA C
ATOM	3803	CG	GLN	399	27.235	63.962	30.316	1.00	73.07	AAAA C
ATOM	3804	CD	GLN	399	25.944	63.146	30.340	1.00	78.39	AAAA C
ATOM	3805	OE1	GLN	399	25.097	63.455	31.194	1.00	71.79	AAAA O
ATOM	3806	NE2	GLN	399	25.856	62.158	29.440	1.00	69.88	AAAA N
ATOM	3809	C	GLN	399	30.490	64.292	31.989	1.00	54.49	AAAA C
ATOM	3810	O	GLN	399	30.528	65.477	32.068	1.00	51.96	AAAA O
ATOM	3811	N	GLN	400	31.058	63.389	32.734	1.00	50.44	AAAA N
ATOM	3813	CA	GLN	400	31.930	63.948	33.756	1.00	53.83	AAAA C
ATOM	3814	CB	GLN	400	31.215	64.314	35.049	1.00	54.93	AAAA C
ATOM	3815	CG	GLN	400	30.717	63.150	35.887	1.00	58.99	AAAA C
ATOM	3816	CD	GLN	400	30.678	63.430	37.389	1.00	65.82	AAAA C
ATOM	3817	OE1	GLN	400	30.906	64.502	37.962	1.00	68.10	AAAA O
ATOM	3818	NE2	GLN	400	30.341	62.444	38.222	1.00	55.35	AAAA N
ATOM	3821	C	GLN	400	33.113	63.008	34.052	1.00	52.08	AAAA C
ATOM	3822	O	GLN	400	33.107	61.783	33.942	1.00	51.90	AAAA O
ATOM	3823	N	LEU	401	34.073	63.580	34.751	1.00	49.58	AAAA N
ATOM	3825	CA	LEU	401	35.175	62.844	35.334	1.00	49.57	AAAA C
ATOM	3826	CB	LEU	401	36.378	63.803	35.260	1.00	47.94	AAAA C
ATOM	3827	CG	LEU	401	36.630	64.237	33.772	1.00	46.61	AAAA C
ATOM	3828	CD1	LEU	401	37.658	65.326	33.677	1.00	39.09	AAAA C
ATOM	3829	CD2	LEU	401	36.914	63.060	32.860	1.00	40.72	AAAA C
ATOM	3930	C	LEU	401	34.866	62.357	36.734	1.00	51.23	AAAA C
ATOM	3931	O	LEU	401	34.258	61.299	36.892	1.00	49.06	AAAA O

Figure 1A-36

ATOM	3832	N	TRP	402	35.297	63.140	37.690	1.00	54.58	AAAA N
ATOM	3834	CA	TRP	402	34.975	63.090	39.097	1.00	59.76	AAAA C
ATOM	3835	CB	TRP	402	36.279	62.953	39.933	1.00	59.56	AAAA C
ATOM	3836	CG	TRP	402	36.971	61.624	39.737	1.00	58.17	AAAA C
ATOM	3837	CD2	TRP	402	37.981	61.243	38.784	1.00	53.18	AAAA C
ATOM	3838	CE2	TRP	402	38.286	59.897	39.002	1.00	56.61	AAAA C
ATOM	3839	CE3	TRP	402	38.643	61.917	37.764	1.00	43.25	AAAA C
ATOM	3840	CD1	TRP	402	36.719	60.517	40.459	1.00	53.50	AAAA C
ATOM	3841	NE1	TRP	402	37.488	59.467	40.032	1.00	57.66	AAAA N
ATOM	3843	CZ2	TRP	402	39.212	59.166	38.249	1.00	51.44	AAAA C
ATOM	3844	CZ3	TRP	402	39.546	61.199	37.026	1.00	53.69	AAAA C
ATOM	3845	CH2	TRP	402	39.820	59.957	37.263	1.00	50.75	AAAA C
ATOM	3846	C	TRP	402	34.223	64.389	39.429	1.00	64.09	AAAA C
ATOM	3847	O	TRP	402	34.408	65.449	38.808	1.00	61.98	AAAA O
ATOM	3848	N	ASP	403	33.503	64.418	40.551	1.00	68.85	AAAA N
ATOM	3850	CA	ASP	403	32.947	65.668	41.068	1.00	67.83	AAAA C
ATOM	3851	CB	ASP	403	31.918	65.343	42.151	1.00	72.19	AAAA C
ATOM	3852	CG	ASP	403	30.853	66.417	42.306	1.00	73.08	AAAA C
ATOM	3853	OD1	ASP	403	31.177	67.625	42.297	1.00	71.67	AAAA O
ATOM	3854	OD2	ASP	403	29.693	65.979	42.454	1.00	75.08	AAAA O
ATOM	3855	C	ASP	403	34.005	66.607	41.607	1.00	66.63	AAAA C
ATOM	3856	O	ASP	403	34.245	66.672	42.811	1.00	67.18	AAAA O
ATOM	3857	N	TRP	404	34.449	67.588	40.846	1.00	69.29	AAAA N
ATOM	3859	CA	TRP	404	35.412	68.588	41.291	1.00	77.11	AAAA C
ATOM	3860	CB	TRP	404	35.859	69.409	40.063	1.00	79.10	AAAA C
ATOM	3861	CG	TRP	404	36.504	68.509	39.047	1.00	82.59	AAAA C
ATOM	3862	CD2	TRP	404	37.294	67.346	39.322	1.00	84.82	AAAA C
ATOM	3863	CE2	TRP	404	37.686	66.813	38.081	1.00	84.56	AAAA C
ATOM	3864	CE3	TRP	404	37.703	66.710	40.506	1.00	80.95	AAAA C
ATOM	3865	CD1	TRP	404	36.460	68.622	37.694	1.00	83.37	AAAA C
ATOM	3866	NE1	TRP	404	37.165	67.617	37.111	1.00	80.33	AAAA N
ATOM	3868	CZ2	TRP	404	38.477	65.662	37.982	1.00	85.91	AAAA C
ATOM	3869	CZ3	TRP	404	38.471	65.573	40.392	1.00	86.36	AAAA C
ATOM	3870	CH2	TRP	404	38.860	65.051	39.133	1.00	85.05	AAAA C
ATOM	3871	C	TRP	404	35.034	69.517	42.420	1.00	81.60	AAAA C
ATOM	3872	O	TRP	404	35.387	70.709	42.504	1.00	84.57	AAAA O
ATOM	3873	N	ASP	405	34.281	69.063	43.393	1.00	84.45	AAAA N
ATOM	3875	CA	ASP	405	33.771	69.861	44.496	1.00	87.48	AAAA C
ATOM	3876	CB	ASP	405	32.352	70.365	44.262	1.00	88.04	AAAA C
ATOM	3877	CG	ASP	405	32.274	71.612	43.409	1.00	92.54	AAAA C
ATOM	3878	OD1	ASP	405	33.306	72.285	43.207	1.00	94.82	AAAA O
ATOM	3879	OD2	ASP	405	31.130	71.854	42.955	1.00	95.26	AAAA O
ATOM	3880	C	ASP	405	33.730	68.906	45.693	1.00	87.80	AAAA C
ATOM	3881	O	ASP	405	34.245	69.224	46.743	1.00	92.18	AAAA O
ATOM	3882	N	ALA	406	33.239	67.709	45.460	1.00	84.46	AAAA N
ATOM	3884	CA	ALA	406	33.176	66.671	46.451	1.00	82.87	AAAA C
ATOM	3885	CB	ALA	406	31.943	65.805	46.133	1.00	76.32	AAAA C
ATOM	3886	C	ALA	406	34.445	65.840	46.459	1.00	85.77	AAAA C
ATOM	3887	O	ALA	406	34.470	64.823	47.185	1.00	89.38	AAAA O
ATOM	3888	N	ARG	407	35.433	66.073	45.577	1.00	83.74	AAAA N
ATOM	3890	CA	ARG	407	36.541	65.151	45.400	1.00	79.60	AAAA C
ATOM	3891	CB	ARG	407	36.165	64.140	44.297	1.00	77.84	AAAA C
ATOM	3892	CG	ARG	407	35.457	62.950	44.921	1.00	81.91	AAAA C
ATOM	3893	CD	ARG	407	35.362	61.688	44.113	1.00	86.97	AAAA C
ATOM	3894	NE	ARG	407	36.281	60.660	44.607	1.00	86.94	AAAA N
ATOM	3896	CZ	ARG	407	37.564	60.583	44.279	1.00	92.14	AAAA C
ATOM	3897	NH1	ARG	407	38.169	61.441	43.469	1.00	97.06	AAAA N
ATOM	3900	NH2	ARG	407	38.309	59.616	44.770	1.00	96.33	AAAA N
ATOM	3903	C	ARG	407	37.880	65.749	45.048	1.00	76.72	AAAA C
ATOM	3904	O	ARG	407	37.989	66.774	44.410	1.00	77.47	AAAA O
ATOM	3905	N	ASN	408	38.958	65.081	45.453	1.00	75.75	AAAA N
ATOM	3907	CA	ASN	408	40.311	65.556	45.173	1.00	73.79	AAAA C
ATOM	3908	CB	ASN	408	40.938	66.240	46.388	1.00	74.46	AAAA C
ATOM	3909	CG	ASN	408	41.986	67.242	45.947	1.00	82.51	AAAA C
ATOM	3910	OD1	ASN	408	41.913	68.429	46.240	1.00	90.33	AAAA O
ATOM	3911	ND2	ASN	408	43.028	66.821	45.253	1.00	84.46	AAAA N
ATOM	3914	C	ASN	408	41.257	64.468	44.654	1.00	65.97	AAAA C
ATOM	3915	O	ASN	408	41.251	63.374	45.151	1.00	63.82	AAAA O
ATOM	3916	N	LEU	409	42.041	64.793	43.650	1.00	61.41	AAAA N
ATOM	3918	CA	LEU	409	42.996	63.872	42.947	1.00	60.90	AAAA C
ATOM	3919	CB	LEU	409	42.153	63.250	41.768	1.00	62.98	AAAA C
ATOM	3920	CG	LEU	409	42.992	62.553	40.704	1.00	59.77	AAAA C
ATOM	3921	CD1	LEU	409	43.488	61.205	41.197	1.00	54.06	AAAA C
ATOM	3922	CD2	LEU	409	42.094	62.445	39.486	1.00	55.74	AAAA C
ATOM	3923	C	LEU	409	44.151	64.599	42.485	1.00	61.19	AAAA C
ATOM	3924	O	LEU	409	44.141	65.809	42.370	1.00	60.64	AAAA O
ATOM	3925	N	THR	410	45.281	63.903	42.424	1.00	63.74	AAAA N
ATOM	3927	CA	THR	410	46.588	64.462	42.131	1.00	60.44	AAAA C
ATOM	3928	CB	THR	410	47.454	64.676	43.385	1.00	67.08	AAAA C
ATOM	3929	OG1	THR	410	46.870	65.746	44.157	1.00	74.29	AAAA O
ATOM	3931	CG2	THR	410	48.909	65.103	43.162	1.00	48.56	AAAA C
ATOM	3932	C	THR	410	47.426	63.565	41.318	1.00	56.62	AAAA C
ATOM	3933	O	THR	410	47.362	62.354	41.317	1.00	54.99	AAAA O
ATOM	3934	N	ILE	411	48.077	64.245	40.288	1.00	53.97	AAAA N
ATOM	3936	CA	ILE	411	48.897	63.562	39.291	1.00	53.29	AAAA C

Figure 1A-37



ATOM	3937	CB	ILE	411	48.409	63.854	37.064	1.00	49.41	AAAA C
ATOM	3938	CG2	ILE	411	49.216	63.128	36.806	1.00	30.86	AAAA C
ATOM	3939	CG1	ILE	411	46.911	63.489	37.729	1.00	40.83	AAAA C
ATOM	3940	CD1	ILE	411	46.322	63.547	36.338	1.00	38.51	AAAA C
ATOM	3941	C	ILE	411	50.319	64.018	39.569	1.00	55.38	AAAA C
ATOM	3942	O	ILE	411	50.656	65.179	39.291	1.00	57.59	AAAA O
ATOM	3943	N	SER	412	51.073	63.182	40.270	1.00	54.26	AAAA N
ATOM	3945	CA	SER	412	52.434	63.502	40.689	1.00	54.46	AAAA C
ATOM	3946	CB	SER	412	53.071	62.210	41.248	1.00	55.78	AAAA C
ATOM	3947	OG	SER	412	53.756	62.536	42.434	1.00	67.12	AAAA O
ATOM	3949	C	SER	412	53.326	63.910	39.523	1.00	55.52	AAAA C
ATOM	3950	O	SER	412	54.081	64.876	39.527	1.00	55.04	AAAA O
ATOM	3951	N	ALA	413	53.254	63.124	38.438	1.00	50.12	AAAA N
ATOM	3953	CA	ALA	413	54.064	63.402	37.281	1.00	50.01	AAAA C
ATOM	3954	CB	ALA	413	55.334	62.520	37.365	1.00	34.96	AAAA C
ATOM	3955	C	ALA	413	53.301	63.078	35.994	1.00	48.71	AAAA C
ATOM	3956	O	ALA	413	52.495	62.168	35.998	1.00	48.81	AAAA O
ATOM	3957	N	GLY	414	53.675	63.690	34.895	1.00	47.92	AAAA N
ATOM	3959	CA	GLY	414	53.057	63.454	33.607	1.00	51.75	AAAA C
ATOM	3960	C	GLY	414	52.017	64.524	33.294	1.00	52.77	AAAA C
ATOM	3961	O	GLY	414	51.684	65.370	34.114	1.00	53.23	AAAA O
ATOM	3962	N	LYS	415	51.385	64.406	32.138	1.00	56.31	AAAA N
ATOM	3964	CA	LYS	415	50.289	65.317	31.759	1.00	52.49	AAAA C
ATOM	3965	CB	LYS	415	50.884	66.358	30.833	1.00	50.94	AAAA C
ATOM	3966	CG	LYS	415	51.198	65.855	29.429	1.00	54.39	AAAA C
ATOM	3967	CD	LYS	415	52.288	66.691	28.765	1.00	53.96	AAAA C
ATOM	3968	CE	LYS	415	52.785	66.151	27.441	1.00	56.01	AAAA C
ATOM	3969	NZ	LYS	415	52.426	67.032	26.284	1.00	66.36	AAAA N
ATOM	3973	C	LYS	415	49.110	64.576	31.155	1.00	50.04	AAAA C
ATOM	3974	O	LYS	415	49.077	63.337	31.036	1.00	49.77	AAAA O
ATOM	3975	N	MET	416	48.091	65.353	30.771	1.00	48.34	AAAA N
ATOM	3977	CA	MET	416	46.890	64.734	30.186	1.00	46.77	AAAA C
ATOM	3978	CB	MET	416	45.629	65.186	30.949	1.00	42.79	AAAA C
ATOM	3979	CG	MET	416	45.836	65.880	32.273	1.00	40.91	AAAA C
ATOM	3980	SD	MET	416	44.511	65.636	33.517	1.00	56.20	AAAA S
ATOM	3981	CE	MET	416	44.002	67.366	33.690	1.00	35.94	AAAA C
ATOM	3982	C	MET	416	46.623	65.064	28.729	1.00	40.40	AAAA C
ATOM	3983	O	MET	416	46.963	66.137	28.247	1.00	34.84	AAAA O
ATOM	3984	N	TYR	417	45.893	64.169	28.104	1.00	38.49	AAAA N
ATOM	3986	CA	TYR	417	45.355	64.387	26.765	1.00	39.50	AAAA C
ATOM	3987	CB	TYR	417	46.156	63.471	25.831	1.00	32.02	AAAA C
ATOM	3988	CG	TYR	417	45.583	63.430	24.429	1.00	39.48	AAAA C
ATOM	3989	CD1	TYR	417	45.730	64.501	23.511	1.00	39.29	AAAA C
ATOM	3990	CE1	TYR	417	45.196	64.429	22.253	1.00	34.56	AAAA C
ATOM	3991	CD2	TYR	417	44.884	62.321	24.005	1.00	36.81	AAAA C
ATOM	3992	CE2	TYR	417	44.379	62.241	22.722	1.00	38.80	AAAA C
ATOM	3993	CZ	TYR	417	44.535	63.292	21.872	1.00	44.20	AAAA C
ATOM	3994	OH	TYR	417	44.053	63.361	20.552	1.00	58.10	AAAA O
ATOM	3996	C	TYR	417	43.853	64.065	26.698	1.00	44.18	AAAA C
ATOM	3997	O	TYR	417	43.376	62.974	27.135	1.00	42.19	AAAA O
ATOM	3998	N	PHE	418	43.068	64.971	26.100	1.00	45.84	AAAA N
ATOM	4000	CA	PHE	418	41.644	64.701	25.910	1.00	45.67	AAAA C
ATOM	4001	CB	PHE	418	40.772	65.657	26.720	1.00	47.19	AAAA C
ATOM	4002	CG	PHE	418	40.675	65.264	28.177	1.00	43.44	AAAA C
ATOM	4003	CD1	PHE	418	41.552	65.685	29.132	1.00	38.43	AAAA C
ATOM	4004	CD2	PHE	418	39.638	64.417	28.544	1.00	51.21	AAAA C
ATOM	4005	CE1	PHE	418	41.402	65.291	30.440	1.00	46.44	AAAA C
ATOM	4006	CE2	PHE	418	39.486	64.023	29.845	1.00	46.63	AAAA C
ATOM	4007	CZ	PHE	418	40.358	64.454	30.801	1.00	44.68	AAAA C
ATOM	4008	C	PHE	418	41.251	64.730	24.440	1.00	44.64	AAAA C
ATOM	4009	O	PHE	418	41.375	65.762	23.812	1.00	47.60	AAAA O
ATOM	4010	N	ALA	419	40.554	63.713	23.936	1.00	43.06	AAAA N
ATOM	4012	CA	ALA	419	40.015	63.793	22.607	1.00	39.21	AAAA C
ATOM	4013	CB	ALA	419	41.090	63.562	21.555	1.00	30.88	AAAA C
ATOM	4014	C	ALA	419	38.837	62.846	22.366	1.00	41.77	AAAA C
ATOM	4015	O	ALA	419	38.871	61.628	22.557	1.00	36.08	AAAA O
ATOM	4016	N	PHE	420	37.829	63.398	21.618	1.00	40.41	AAAA N
ATOM	4018	CA	PHE	420	36.742	62.621	21.070	1.00	40.03	AAAA C
ATOM	4019	CB	PHE	420	37.157	61.430	20.180	1.00	45.54	AAAA C
ATOM	4020	CG	PHE	420	37.832	61.909	18.912	1.00	54.18	AAAA C
ATOM	4021	CD1	PHE	420	39.221	61.987	18.751	1.00	49.23	AAAA C
ATOM	4022	CD2	PHE	420	37.006	62.345	17.871	1.00	47.65	AAAA C
ATOM	4023	CE1	PHE	420	39.780	62.496	17.567	1.00	46.00	AAAA C
ATOM	4024	CE2	PHE	420	37.572	62.833	16.725	1.00	51.10	AAAA C
ATOM	4025	CZ	PHE	420	38.964	62.928	16.549	1.00	44.01	AAAA C
ATOM	4026	C	PHE	420	35.762	62.146	22.126	1.00	41.65	AAAA C
ATOM	4027	O	PHE	420	35.352	60.991	22.215	1.00	38.35	AAAA O
ATOM	4028	N	ASN	421	35.459	63.024	23.049	1.00	45.35	AAAA N
ATOM	4030	CA	ASN	421	34.477	62.960	24.112	1.00	46.86	AAAA C
ATOM	4031	CB	ASN	421	35.184	63.276	25.449	1.00	43.60	AAAA C
ATOM	4032	CG	ASN	421	36.407	62.401	25.654	1.00	47.90	AAAA C
ATOM	4033	OD1	ASN	421	36.426	61.147	25.714	1.00	44.83	AAAA O
ATOM	4034	ND2	ASN	421	37.541	63.101	25.732	1.00	37.46	AAAA N
ATOM	4037	C	ASN	421	33.432	64.069	23.835	1.00	47.83	AAAA C
ATOM	4038	O	ASN	421	33.617	65.233	24.237	1.00	38.95	AAAA O

Figure 1A-38

ATOM	4039	N	PRO	422	32.453	63.777	22.968	1.00	47.86	AAAA N
ATOM	4040	CD	PRO	422	32.213	62.423	22.372	1.00	44.11	AAAA C
ATOM	4041	CA	PRO	422	31.463	64.776	22.605	1.00	47.85	AAAA C
ATOM	4042	CB	PRO	422	30.731	64.084	21.446	1.00	44.86	AAAA C
ATOM	4043	CG	PRO	422	30.947	62.623	21.606	1.00	43.01	AAAA C
ATOM	4044	C	PRO	422	30.577	65.284	23.735	1.00	51.16	AAAA C
ATOM	4045	O	PRO	422	30.223	66.486	23.744	1.00	48.54	AAAA O
ATOM	4046	N	LYS	423	30.320	64.487	21.774	1.00	52.90	AAAA N
ATOM	4048	CA	LYS	423	29.431	64.908	25.865	1.00	58.82	AAAA C
ATOM	4049	CB	LYS	423	28.556	63.721	26.360	1.00	52.93	AAAA C
ATOM	4050	CG	LYS	423	28.209	62.810	25.196	1.00	70.55	AAAA C
ATOM	4051	CD	LYS	423	26.743	62.448	24.996	1.00	73.79	AAAA C
ATOM	4052	CE	LYS	423	26.030	63.374	24.021	1.00	77.06	AAAA C
ATOM	4053	NZ	LYS	423	25.949	64.748	24.614	1.00	64.99	AAAA N
ATOM	4057	C	LYS	423	30.158	65.482	27.071	1.00	57.43	AAAA C
ATOM	4058	O	LYS	423	29.582	65.478	28.152	1.00	55.22	AAAA O
ATOM	4059	N	LEU	424	31.425	65.859	26.862	1.00	55.95	AAAA N
ATOM	4061	CA	LEU	424	32.261	66.162	28.017	1.00	57.07	AAAA C
ATOM	4062	CB	LEU	424	33.463	65.250	28.237	1.00	49.16	AAAA C
ATOM	4063	CG	LEU	424	34.390	65.748	29.370	1.00	68.27	AAAA C
ATOM	4064	CD1	LEU	424	33.821	65.362	30.734	1.00	60.66	AAAA C
ATOM	4065	CD2	LEU	424	35.825	65.276	29.123	1.00	60.35	AAAA C
ATOM	4066	C	LEU	424	32.709	67.585	27.878	1.00	56.29	AAAA C
ATOM	4067	O	LEU	424	33.696	67.861	27.201	1.00	59.98	AAAA O
ATOM	4068	N	CYS	425	31.995	68.488	28.492	1.00	58.76	AAAA N
ATOM	4070	CA	CYS	425	32.342	69.916	28.406	1.00	60.39	AAAA C
ATOM	4071	C	CYS	425	33.771	70.119	28.810	1.00	62.59	AAAA C
ATOM	4072	O	CYS	425	34.288	69.665	29.831	1.00	64.45	AAAA O
ATOM	4073	CB	CYS	425	31.249	70.644	29.214	1.00	68.23	AAAA C
ATOM	4074	SG	CYS	425	29.916	71.303	28.086	1.00	81.03	AAAA S
ATOM	4075	N	VAL	426	34.529	70.953	28.102	1.00	65.31	AAAA N
ATOM	4077	CA	VAL	426	35.943	71.149	28.358	1.00	65.49	AAAA C
ATOM	4078	CB	VAL	426	36.644	72.022	27.310	1.00	66.66	AAAA C
ATOM	4079	CG1	VAL	426	36.715	71.413	25.925	1.00	62.49	AAAA C
ATOM	4080	CG2	VAL	426	35.962	73.365	27.239	1.00	60.92	AAAA C
ATOM	4081	C	VAL	426	36.105	71.711	29.757	1.00	65.99	AAAA C
ATOM	4082	O	VAL	426	37.180	71.724	30.388	1.00	64.51	AAAA O
ATOM	4083	N	SER	427	35.090	72.361	30.267	1.00	67.67	AAAA N
ATOM	4085	CA	SER	427	35.091	72.927	31.599	1.00	66.85	AAAA C
ATOM	4086	CB	SER	427	33.685	73.499	31.864	1.00	61.16	AAAA C
ATOM	4087	OG	SER	427	34.088	74.860	32.098	1.00	67.05	AAAA O
ATOM	4089	C	SER	427	35.515	71.972	32.701	1.00	64.24	AAAA C
ATOM	4090	O	SER	427	36.332	72.328	33.573	1.00	63.66	AAAA O
ATOM	4091	N	GLU	428	34.965	70.771	32.618	1.00	58.75	AAAA N
ATOM	4093	CA	GLU	428	35.384	69.753	33.585	1.00	63.39	AAAA C
ATOM	4094	CB	GLU	428	34.594	68.485	33.240	1.00	68.67	AAAA C
ATOM	4095	CG	GLU	428	33.115	68.560	33.537	1.00	66.59	AAAA C
ATOM	4096	CD	GLU	428	32.785	68.560	35.023	1.00	72.33	AAAA C
ATOM	4097	OE1	GLU	428	32.729	67.522	35.722	1.00	81.62	AAAA O
ATOM	4098	OE2	GLU	428	32.581	69.688	35.517	1.00	70.97	AAAA O
ATOM	4099	C	GLU	428	36.870	69.485	33.429	1.00	61.63	AAAA C
ATOM	4100	O	GLU	428	37.671	69.696	34.307	1.00	62.03	AAAA O
ATOM	4101	N	ILE	429	37.265	69.262	32.165	1.00	62.26	AAAA N
ATOM	4103	CA	ILE	429	38.631	69.038	31.789	1.00	61.09	AAAA C
ATOM	4104	CB	ILE	429	38.759	68.933	30.263	1.00	59.32	AAAA C
ATOM	4105	CG2	ILE	429	40.257	68.915	29.895	1.00	45.93	AAAA C
ATOM	4106	CG1	ILE	429	37.968	67.719	29.794	1.00	57.66	AAAA C
ATOM	4107	CD1	ILE	429	38.039	67.555	28.285	1.00	53.48	AAAA C
ATOM	4108	C	ILE	429	39.498	70.166	32.323	1.00	61.90	AAAA C
ATOM	4109	O	ILE	429	40.592	70.017	32.867	1.00	61.28	AAAA O
ATOM	4110	N	TYR	430	38.987	71.384	32.200	1.00	65.34	AAAA N
ATOM	4112	CA	TYR	430	39.729	72.543	32.719	1.00	68.10	AAAA C
ATOM	4113	CB	TYR	430	39.180	73.822	32.099	1.00	71.02	AAAA C
ATOM	4114	CG	TYR	430	39.538	74.006	30.639	1.00	75.98	AAAA C
ATOM	4115	CD1	TYR	430	38.653	73.821	29.599	1.00	77.60	AAAA C
ATOM	4116	CE1	TYR	430	38.953	73.977	28.270	1.00	75.72	AAAA C
ATOM	4117	CD2	TYR	430	40.910	74.401	30.260	1.00	75.95	AAAA C
ATOM	4118	CE2	TYR	430	41.155	74.575	28.937	1.00	74.81	AAAA C
ATOM	4119	CZ	TYR	430	40.221	74.359	27.952	1.00	78.51	AAAA C
ATOM	4120	OH	TYR	430	40.564	74.542	26.616	1.00	85.40	AAAA O
ATOM	4122	C	TYR	430	39.779	72.634	34.241	1.00	63.72	AAAA C
ATOM	4123	O	TYR	430	40.654	73.321	31.758	1.00	58.26	AAAA O
ATOM	4124	N	ARG	431	38.819	72.017	34.907	1.00	65.53	AAAA N
ATOM	4126	CA	ARG	431	38.747	72.043	36.356	1.00	68.15	AAAA C
ATOM	4127	CB	ARG	431	37.348	71.748	36.898	1.00	73.32	AAAA C
ATOM	4128	CG	ARG	431	37.345	71.815	38.430	1.00	82.99	AAAA C
ATOM	4129	CD	ARG	431	37.270	73.279	39.860	1.00	88.39	AAAA C
ATOM	4130	NE	ARG	431	37.698	73.472	40.258	1.00	92.48	AAAA N
ATOM	4132	CZ	ARG	431	36.835	73.258	41.259	1.00	94.93	AAAA C
ATOM	4133	NH1	ARG	431	35.610	72.872	40.872	1.00	87.40	AAAA N
ATOM	4136	NH2	ARG	431	37.021	73.371	42.567	1.00	95.17	AAAA N
ATOM	4139	C	ARG	431	39.718	70.986	36.677	1.00	67.75	AAAA C
ATOM	4140	O	ARG	431	40.637	71.292	37.629	1.00	66.74	AAAA O
ATOM	4141	N	MET	432	39.541	69.791	36.305	1.00	63.87	AAAA N
ATOM	4143	CA	MET	432	40.437	68.705	36.652	1.00	64.40	AAAA C

Figure 1A-39

ATOM	4144	CB	MET	432	40.237	67.622	35.719	1.00	54.25	AAAA C
ATOM	4145	CG	MET	432	41.254	66.426	35.971	1.00	40.18	AAAA C
ATOM	4146	SD	MET	432	40.829	64.925	35.112	1.00	52.21	AAAA S
ATOM	4147	CE	MET	432	41.582	63.681	36.137	1.00	54.99	AAAA C
ATOM	4148	C	MET	432	41.991	69.170	36.626	1.00	64.65	AAAA C
ATOM	4149	O	MET	432	42.530	68.992	37.653	1.00	65.89	AAAA O
ATOM	4150	N	GLU	433	42.331	69.811	35.556	1.00	65.78	AAAA N
ATOM	4152	CA	GLU	433	43.622	70.469	35.510	1.00	69.16	AAAA C
ATOM	4153	CB	GLU	433	43.764	71.506	34.401	1.00	69.58	AAAA C
ATOM	4154	CG	GLU	433	44.121	70.967	33.048	1.00	76.91	AAAA C
ATOM	4155	CD	GLU	433	44.623	72.149	32.212	1.00	82.02	AAAA C
ATOM	4156	OE1	GLU	433	44.718	73.224	32.874	1.00	86.82	AAAA O
ATOM	4157	OE2	GLU	433	44.905	72.050	31.042	1.00	88.26	AAAA O
ATOM	4158	C	GLU	433	44.016	71.219	36.781	1.00	71.29	AAAA C
ATOM	4159	O	GLU	433	45.133	71.083	37.294	1.00	74.29	AAAA O
ATOM	4160	N	GLU	434	43.178	72.120	37.280	1.00	72.93	AAAA N
ATOM	4162	CA	GLU	434	43.505	72.873	38.485	1.00	72.86	AAAA C
ATOM	4163	CB	GLU	434	42.458	73.916	38.840	1.00	81.36	AAAA C
ATOM	4164	CG	GLU	434	41.191	73.956	38.032	1.00	83.34	AAAA C
ATOM	4165	CD	GLU	434	40.191	75.001	38.432	1.00	97.32	AAAA C
ATOM	4166	OE1	GLU	434	39.521	74.928	39.505	1.00	97.34	AAAA O
ATOM	4167	OE2	GLU	434	40.080	75.941	37.583	1.00	99.95	AAAA O
ATOM	4168	C	GLU	434	43.675	71.886	39.632	1.00	71.46	AAAA C
ATOM	4169	O	GLU	434	44.728	71.858	40.251	1.00	78.49	AAAA O
ATOM	4170	N	VAL	435	42.670	71.095	39.026	1.00	66.34	AAAA N
ATOM	4172	CA	VAL	435	42.711	70.129	41.001	1.00	62.49	AAAA C
ATOM	4173	CB	VAL	435	41.451	69.217	40.972	1.00	60.38	AAAA C
ATOM	4174	CG1	VAL	435	41.547	68.214	42.104	1.00	52.32	AAAA C
ATOM	4175	CG2	VAL	435	40.203	70.073	41.029	1.00	50.79	AAAA C
ATOM	4176	C	VAL	435	43.939	69.253	41.018	1.00	60.74	AAAA C
ATOM	4177	O	VAL	435	44.607	69.165	42.034	1.00	62.37	AAAA O
ATOM	4178	N	THR	436	44.282	68.506	39.988	1.00	60.67	AAAA N
ATOM	4180	CA	THR	436	45.335	67.516	39.936	1.00	56.36	AAAA C
ATOM	4181	CB	THR	436	45.199	66.565	38.736	1.00	50.92	AAAA C
ATOM	4182	OG1	THR	436	44.913	67.283	37.503	1.00	47.03	AAAA O
ATOM	4184	CG2	THR	436	44.108	65.526	38.901	1.00	54.38	AAAA C
ATOM	4185	C	THR	436	46.701	68.184	39.930	1.00	60.55	AAAA C
ATOM	4186	O	THR	436	47.714	67.490	40.024	1.00	60.61	AAAA O
ATOM	4187	N	GLY	437	46.836	69.496	39.835	1.00	60.65	AAAA N
ATOM	4189	CA	GLY	437	48.102	70.164	39.749	1.00	59.47	AAAA C
ATOM	4190	C	GLY	437	48.800	69.864	38.424	1.00	64.78	AAAA C
ATOM	4191	O	GLY	437	49.983	70.254	38.245	1.00	62.70	AAAA O
ATOM	4192	N	THR	438	48.112	69.387	37.380	1.00	63.79	AAAA N
ATOM	4194	CA	THR	438	48.731	69.169	36.076	1.00	65.09	AAAA C
ATOM	4195	CB	THR	438	47.967	68.027	35.411	1.00	66.87	AAAA C
ATOM	4196	OG1	THR	438	46.600	68.385	35.731	1.00	62.22	AAAA O
ATOM	4198	CG2	THR	438	48.208	66.659	36.019	1.00	68.74	AAAA C
ATOM	4199	C	THR	438	48.590	70.415	35.220	1.00	66.14	AAAA C
ATOM	4200	O	THR	438	49.003	70.543	34.070	1.00	68.05	AAAA O
ATOM	4201	N	LYS	439	48.089	71.481	35.822	1.00	67.37	AAAA N
ATOM	4203	CA	LYS	439	47.927	72.757	35.154	1.00	71.08	AAAA C
ATOM	4204	CB	LYS	439	47.114	73.708	36.034	1.00	69.23	AAAA C
ATOM	4205	CG	LYS	439	46.677	74.938	35.265	1.00	77.26	AAAA C
ATOM	4206	CD	LYS	439	45.832	75.942	36.014	1.00	81.65	AAAA C
ATOM	4207	CE	LYS	439	44.385	75.475	36.182	1.00	87.39	AAAA C
ATOM	4208	NZ	LYS	439	43.667	76.431	37.100	1.00	93.85	AAAA N
ATOM	4212	C	LYS	439	49.249	73.396	34.752	1.00	73.01	AAAA C
ATOM	4213	O	LYS	439	49.996	73.986	35.541	1.00	74.60	AAAA O
ATOM	4214	N	GLY	440	49.517	73.453	33.441	1.00	73.33	AAAA N
ATOM	4216	CA	GLY	440	50.733	74.167	33.014	1.00	71.39	AAAA C
ATOM	4217	C	GLY	440	51.716	73.204	32.389	1.00	71.20	AAAA C
ATOM	4218	O	GLY	440	52.684	73.650	31.822	1.00	72.70	AAAA O
ATOM	4219	N	ARG	441	51.445	71.908	32.436	1.00	72.99	AAAA N
ATOM	4221	CA	ARG	441	52.343	70.945	31.831	1.00	74.12	AAAA C
ATOM	4222	CB	ARG	441	52.617	69.740	32.716	1.00	69.44	AAAA C
ATOM	4223	CG	ARG	441	51.847	69.695	34.003	1.00	63.34	AAAA C
ATOM	4224	CD	ARG	441	52.060	68.314	34.595	1.00	67.64	AAAA C
ATOM	4225	NE	ARG	441	52.244	68.395	36.030	1.00	61.00	AAAA N
ATOM	4227	CZ	ARG	441	52.326	67.357	36.831	1.00	59.21	AAAA C
ATOM	4228	NH1	ARG	441	52.258	66.117	36.395	1.00	60.57	AAAA N
ATOM	4231	NH2	ARG	441	52.168	67.596	38.128	1.00	72.94	AAAA N
ATOM	4234	C	ARG	441	51.760	70.446	30.511	1.00	73.50	AAAA C
ATOM	4235	O	ARG	441	52.195	69.424	30.012	1.00	74.73	AAAA O
ATOM	4236	N	GLN	442	50.732	71.114	30.043	1.00	74.69	AAAA N
ATOM	4238	CA	GLN	442	49.959	70.646	28.914	1.00	75.13	AAAA C
ATOM	4239	CB	GLN	442	48.457	70.875	29.126	1.00	68.73	AAAA C
ATOM	4240	CG	GLN	442	47.669	69.576	29.195	1.00	71.20	AAAA C
ATOM	4241	CD	GLN	442	47.623	69.028	30.607	1.00	70.98	AAAA C
ATOM	4242	OE1	GLN	442	47.714	67.822	30.868	1.00	78.66	AAAA O
ATOM	4243	NE2	GLN	442	47.477	69.907	31.584	1.00	66.86	AAAA N
ATOM	4246	C	GLN	442	50.326	71.359	27.627	1.00	77.69	AAAA C
ATOM	4247	O	GLN	442	50.227	72.569	27.530	1.00	75.57	AAAA O
ATOM	4248	N	ALA	443	50.474	70.554	26.575	1.00	81.51	AAAA N
ATOM	4250	CA	ALA	443	50.643	71.149	25.236	1.00	82.95	AAAA C
ATOM	4251	CB	ALA	443	51.104	70.118	24.220	1.00	81.69	AAAA C

Figure 1A-40

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ATOM  4352  C   ALA  443      49.259  71.706  24.952  1.00 83.73      AAAA C
ATOM  4353  O   ALA  443      49.398  71.744  25.830  1.00 83.87      AAAA C
ATOM  4354  N   LYS  444      48.914  72.052  23.713  1.00 86.20      AAAA N
ATOM  4356  CA  LYS  444      47.559  72.524  23.482  1.00 85.88      AAAA C
ATOM  4357  CB  LYS  444      47.426  73.997  23.128  1.00 83.99      AAAA C
ATOM  4358  CG  LYS  444      46.673  74.734  24.241  1.00 93.60      AAAA C
ATOM  4359  CD  LYS  444      45.883  73.841  25.186  1.00 95.14      AAAA C
ATOM  4360  CE  LYS  444      46.390  73.786  26.614  1.00 97.04      AAAA C
ATOM  4361  NZ  LYS  444      45.368  73.090  27.473  1.00 97.22      AAAA N
ATOM  4365  C   LYS  444      46.659  71.779  22.508  1.00 84.20      AAAA C
ATOM  4366  O   LYS  444      45.428  71.901  22.635  1.00 85.63      AAAA O
ATOM  4367  N   GLY  445      47.214  70.734  21.916  1.00 78.85      AAAA N
ATOM  4369  CA  GLY  445      46.368  69.786  21.208  1.00 75.06      AAAA C
ATOM  4370  C   GLY  445      45.803  68.844  22.260  1.00 72.30      AAAA C
ATOM  4371  O   GLY  445      44.963  67.993  21.940  1.00 74.90      AAAA O
ATOM  4372  N   ASP  446      46.300  68.981  23.492  1.00 67.97      AAAA N
ATOM  4374  CA  ASP  446      45.914  68.174  24.642  1.00 62.81      AAAA C
ATOM  4375  CB  ASP  446      46.754  68.552  25.873  1.00 55.24      AAAA C
ATOM  4376  CG  ASP  446      48.213  68.169  25.801  1.00 54.07      AAAA C
ATOM  4377  OD1 ASP  446      48.693  67.385  24.946  1.00 45.08      AAAA O
ATOM  4378  OD2 ASP  446      49.091  68.595  26.593  1.00 50.13      AAAA O
ATOM  4379  C   ASP  446      44.438  68.274  25.016  1.00 58.07      AAAA C
ATOM  4380  O   ASP  446      43.610  67.369  25.127  1.00 55.59      AAAA O
ATOM  4381  N   ILE  447      44.043  69.527  25.226  1.00 54.13      AAAA N
ATOM  4383  CA  ILE  447      42.652  69.822  25.510  1.00 54.09      AAAA C
ATOM  4384  CB  ILE  447      42.505  70.502  26.877  1.00 48.92      AAAA C
ATOM  4385  CG2 ILE  447      41.030  70.663  27.182  1.00 41.02      AAAA C
ATOM  4386  CG1 ILE  447      43.211  69.621  27.932  1.00 52.36      AAAA C
ATOM  4387  CD1 ILE  447      43.468  70.329  29.237  1.00 48.47      AAAA C
ATOM  4388  C   ILE  447      42.027  70.591  24.364  1.00 53.06      AAAA C
ATOM  4389  O   ILE  447      41.718  71.772  24.423  1.00 56.08      AAAA O
ATOM  4390  N   ASN  448      41.625  69.915  23.307  1.00 53.17      AAAA N
ATOM  4392  CA  ASN  448      41.013  70.642  22.202  1.00 54.61      AAAA C
ATOM  4393  CB  ASN  448      41.283  69.982  20.863  1.00 49.17      AAAA C
ATOM  4394  CG  ASN  448      40.415  68.786  20.577  1.00 49.40      AAAA C
ATOM  4395  OD1 ASN  448      39.287  68.977  20.113  1.00 52.34      AAAA O
ATOM  4396  ND2 ASN  448      40.990  67.622  20.871  1.00 52.49      AAAA N
ATOM  4399  C   ASN  448      39.518  70.824  22.402  1.00 56.44      AAAA C
ATOM  4400  O   ASN  448      38.816  69.974  22.939  1.00 55.83      AAAA O
ATOM  4401  N   THR  449      39.071  71.917  21.764  1.00 58.52      AAAA N
ATOM  4403  CA  THR  449      37.682  72.351  21.901  1.00 58.62      AAAA C
ATOM  4404  CB  THR  449      37.497  73.845  22.169  1.00 55.90      AAAA C
ATOM  4405  OG1 THR  449      37.913  74.485  20.943  1.00 68.89      AAAA O
ATOM  4407  CG2 THR  449      38.354  74.352  23.310  1.00 59.06      AAAA C
ATOM  4408  C   THR  449      36.920  72.053  20.628  1.00 56.82      AAAA C
ATOM  4409  O   THR  449      35.750  72.381  20.473  1.00 60.87      AAAA O
ATOM  4410  N   ARG  450      37.539  71.304  19.757  1.00 55.76      AAAA N
ATOM  4412  CA  ARG  450      36.887  70.935  18.507  1.00 54.66      AAAA C
ATOM  4413  CB  ARG  450      37.845  71.179  17.377  1.00 48.33      AAAA C
ATOM  4414  CG  ARG  450      38.385  69.975  16.645  1.00 54.81      AAAA C
ATOM  4415  CD  ARG  450      39.487  70.561  15.696  1.00 44.92      AAAA C
ATOM  4416  NE  ARG  450      40.706  70.719  16.488  1.00 52.49      AAAA N
ATOM  4418  CZ  ARG  450      41.544  69.757  16.882  1.00 39.08      AAAA C
ATOM  4419  NH1 ARG  450      41.176  68.572  16.466  1.00 41.07      AAAA N
ATOM  4422  NH2 ARG  450      42.601  70.001  17.610  1.00 45.18      AAAA N
ATOM  4425  C   ARG  450      36.267  69.553  18.557  1.00 56.82      AAAA C
ATOM  4426  O   ARG  450      35.186  69.303  17.992  1.00 58.15      AAAA O
ATOM  4427  N   ASN  451      36.800  68.583  19.324  1.00 56.66      AAAA N
ATOM  4429  CA  ASN  451      36.107  67.311  19.434  1.00 50.27      AAAA C
ATOM  4430  CB  ASN  451      36.725  66.127  18.760  1.00 48.54      AAAA C
ATOM  4431  CG  ASN  451      38.243  66.143  18.764  1.00 60.51      AAAA C
ATOM  4432  OD1 ASN  451      38.779  66.279  19.855  1.00 53.45      AAAA O
ATOM  4433  ND2 ASN  451      38.707  65.976  17.506  1.00 54.88      AAAA N
ATOM  4436  C   ASN  451      35.849  66.854  20.869  1.00 52.97      AAAA C
ATOM  4437  O   ASN  451      35.330  65.750  21.096  1.00 49.71      AAAA O
ATOM  4438  N   ASN  452      36.126  67.668  21.851  1.00 51.98      AAAA N
ATOM  4440  CA  ASN  452      35.769  67.485  23.229  1.00 55.88      AAAA C
ATOM  4441  CB  ASN  452      36.947  67.873  24.136  1.00 54.62      AAAA C
ATOM  4442  CG  ASN  452      37.936  66.736  24.285  1.00 60.96      AAAA C
ATOM  4443  OD1 ASN  452      37.646  65.633  24.735  1.00 51.30      AAAA O
ATOM  4444  ND2 ASN  452      39.153  67.098  23.855  1.00 56.75      AAAA N
ATOM  4447  C   ASN  452      34.603  68.385  23.609  1.00 58.11      AAAA C
ATOM  4448  O   ASN  452      34.785  69.629  23.657  1.00 55.07      AAAA O
ATOM  4449  N   GLY  453      33.444  67.813  23.985  1.00 55.08      AAAA N
ATOM  4451  CA  GLY  453      32.313  68.658  24.296  1.00 59.47      AAAA C
ATOM  4452  C   GLY  453      31.500  69.269  23.174  1.00 64.95      AAAA C
ATOM  4453  O   GLY  453      30.302  69.603  23.276  1.00 65.71      AAAA O
ATOM  4454  N   GLU  454      31.910  69.109  21.910  1.00 67.44      AAAA N
ATOM  4456  CA  GLU  454      31.266  69.543  20.690  1.00 63.63      AAAA C
ATOM  4457  CB  GLU  454      31.739  68.818  19.401  1.00 53.71      AAAA C
ATOM  4458  CG  GLU  454      32.349  67.430  19.739  1.00 49.50      AAAA C
ATOM  4459  CD  GLU  454      32.368  66.620  18.454  1.00 54.61      AAAA C
ATOM  4460  OE1 GLU  454      31.368  66.637  17.702  0.01 54.19      AAAA O
ATOM  4461  OE2 GLU  454      33.417  66.003  18.160  0.01 54.17      AAAA O
ATOM  4462  C   GLU  454      29.762  69.301  20.767  1.00 65.41      AAAA C
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Figure 1A-41

ATOM	4363	O	GLU	454	29.022	70.089	20.169	1.00	67.86	AAAA O
ATOM	4364	N	ARG	455	29.288	69.187	21.333	1.00	66.45	AAAA N
ATOM	4366	CA	ARG	455	27.843	67.997	21.371	1.00	69.33	AAAA C
ATOM	4367	CB	ARG	455	27.448	66.733	20.652	1.00	73.38	AAAA C
ATOM	4368	CG	ARG	455	28.467	65.912	19.924	1.00	74.27	AAAA C
ATOM	4369	CD	ARG	455	27.775	64.740	19.240	1.00	79.54	AAAA C
ATOM	4370	NE	ARG	455	27.301	63.638	20.052	1.00	86.31	AAAA N
ATOM	4372	CZ	ARG	455	27.802	62.412	20.189	1.00	88.60	AAAA C
ATOM	4373	NH1	ARG	455	28.990	61.997	19.538	1.00	84.51	AAAA N
ATOM	4376	NH2	ARG	455	27.225	61.523	21.003	1.00	87.36	AAAA N
ATOM	4379	C	ARG	455	27.213	67.934	22.756	1.00	67.35	AAAA C
ATOM	4380	O	ARG	455	26.403	67.025	22.961	1.00	66.26	AAAA O
ATOM	4381	N	ALA	456	27.499	68.879	23.623	1.00	66.52	AAAA N
ATOM	4383	CA	ALA	456	26.947	68.906	24.964	1.00	72.01	AAAA C
ATOM	4384	CB	ALA	456	27.832	68.147	25.939	1.00	61.84	AAAA C
ATOM	4385	C	ALA	456	26.802	70.379	25.371	1.00	75.25	AAAA C
ATOM	4386	O	ALA	456	27.706	71.219	25.202	1.00	81.30	AAAA O
ATOM	4387	N	SER	457	25.653	70.720	25.939	0.50	71.91	AAAA N
ATOM	4389	CA	SER	457	25.431	72.095	26.358	0.50	69.64	AAAA C
ATOM	4390	CB	SER	457	23.991	72.247	26.836	0.50	73.30	AAAA C
ATOM	4391	OG	SER	457	23.422	73.294	26.060	0.50	73.31	AAAA O
ATOM	4393	C	SER	457	26.418	72.510	27.437	0.50	69.27	AAAA C
ATOM	4394	O	SER	457	26.458	71.957	28.530	0.50	67.32	AAAA O
ATOM	4395	N	CYS	458	27.197	73.531	27.117	0.50	70.44	AAAA N
ATOM	4397	CA	CYS	458	28.287	73.960	27.972	0.50	72.57	AAAA C
ATOM	4398	C	CYS	458	27.949	75.205	28.757	0.50	72.54	AAAA C
ATOM	4399	O	CYS	458	27.065	75.128	29.606	0.50	76.63	AAAA O
ATOM	4400	CB	CYS	458	29.527	74.171	27.089	0.50	75.38	AAAA C
ATOM	4401	SG	CYS	458	30.844	73.032	27.490	0.50	72.18	AAAA S
ATOM	4402	N	ALA	459	28.607	76.306	28.441	0.50	70.13	AAAA N
ATOM	4404	CA	ALA	459	28.445	77.572	29.116	0.50	70.05	AAAA C
ATOM	4405	CB	ALA	459	27.046	78.149	28.996	0.50	70.57	AAAA C
ATOM	4406	C	ALA	459	28.826	77.461	30.601	0.50	70.13	AAAA C
ATOM	4407	O	ALA	459	29.080	78.556	31.154	0.50	69.96	AAAA O
ATOM	4407	OT	ALA	459	28.855	76.301	31.054	0.50	68.22	AAAA O
ATOM	4522	C1	NAG	461	59.581	7.102	61.119	1.00	88.13	AAAA C
ATOM	4524	C2	NAG	461	59.964	7.338	59.697	1.00	91.94	AAAA C
ATOM	4526	N2	NAG	461	58.738	7.699	58.920	1.00	92.72	AAAA N
ATOM	4528	C7	NAG	461	58.400	9.020	58.999	1.00	96.97	AAAA C
ATOM	4529	O7	NAG	461	58.879	9.774	59.726	1.00	98.62	AAAA O
ATOM	4530	C8	NAG	461	57.323	9.390	58.043	1.00	100.60	AAAA C
ATOM	4534	C3	NAG	461	60.725	6.225	59.085	1.00	94.77	AAAA C
ATOM	4536	O3	NAG	461	61.417	6.725	57.930	1.00	98.51	AAAA O
ATOM	4538	C4	NAG	461	61.873	5.869	60.064	1.00	96.01	AAAA C
ATOM	4540	O4	NAG	461	62.661	4.821	59.484	1.00	99.20	AAAA O
ATOM	4542	C5	NAG	461	61.359	5.529	61.474	1.00	95.13	AAAA C
ATOM	4545	C6	NAG	461	62.465	5.321	62.495	1.00	93.66	AAAA C
ATOM	4548	O6	NAG	461	62.745	6.364	63.354	1.00	92.13	AAAA O
ATOM	4549	O5	NAG	461	60.625	6.648	61.949	1.00	91.92	AAAA O
ATOM	4550	C1	NAG	463	33.054	15.249	72.938	1.00	43.58	AAAA C
ATOM	4552	C2	NAG	463	31.644	15.282	73.412	1.00	43.62	AAAA C
ATOM	4554	N2	NAG	463	30.709	14.527	72.541	1.00	42.16	AAAA N
ATOM	4556	C7	NAG	463	29.912	13.584	73.099	1.00	40.84	AAAA C
ATOM	4557	O7	NAG	463	29.928	13.406	74.222	1.00	40.10	AAAA O
ATOM	4558	C8	NAG	463	28.975	12.694	72.394	1.00	35.47	AAAA C
ATOM	4562	C3	NAG	463	31.150	16.675	73.448	1.00	45.40	AAAA C
ATOM	4564	O3	NAG	463	29.979	16.555	74.196	1.00	45.99	AAAA O
ATOM	4566	C4	NAG	463	32.117	17.617	74.171	1.00	50.36	AAAA C
ATOM	4568	O4	NAG	463	31.596	18.919	73.891	1.00	53.97	AAAA O
ATOM	4569	C5	NAG	463	33.589	17.477	73.725	1.00	48.50	AAAA C
ATOM	4572	C6	NAG	463	34.490	17.996	74.742	1.00	48.34	AAAA C
ATOM	4575	O6	NAG	463	34.906	18.739	75.671	1.00	57.11	AAAA O
ATOM	4571	O5	NAG	463	33.942	16.120	73.583	1.00	48.58	AAAA O
ATOM	4576	C1	FUC	464	34.544	19.954	76.083	1.00	81.45	AAAA C
ATOM	4578	C2	FUC	464	35.179	21.173	75.463	1.00	86.35	AAAA C
ATOM	4579	O2	FUC	464	35.153	21.169	74.021	1.00	92.94	AAAA O
ATOM	4582	C3	FUC	464	34.252	22.284	75.945	1.00	86.79	AAAA C
ATOM	4584	O3	FUC	464	34.691	23.613	75.596	1.00	87.83	AAAA O
ATOM	4586	C4	FUC	464	33.871	22.274	77.412	1.00	86.67	AAAA C
ATOM	4588	O4	FUC	464	34.508	23.297	78.115	1.00	87.06	AAAA O
ATOM	4590	C5	FUC	464	33.921	20.894	78.040	1.00	85.85	AAAA C
ATOM	4593	C6	FUC	464	34.279	20.768	79.512	1.00	83.37	AAAA C
ATOM	4592	O5	FUC	464	35.042	20.150	77.425	1.00	82.43	AAAA O
ATOM	4597	C1	NAG	465	31.575	19.813	74.940	1.00	64.68	AAAA C
ATOM	4599	C2	NAG	465	31.267	21.207	74.437	1.00	69.57	AAAA C
ATOM	4601	N2	NAG	465	32.480	21.642	73.690	1.00	71.25	AAAA N
ATOM	4603	C7	NAG	465	32.401	21.953	72.381	1.00	73.86	AAAA C
ATOM	4604	O7	NAG	465	31.373	21.835	71.881	1.00	74.80	AAAA O
ATOM	4605	C8	NAG	465	33.679	22.401	71.787	1.00	76.00	AAAA C
ATOM	4609	C3	NAG	465	31.050	22.214	75.546	1.00	72.71	AAAA C
ATOM	4611	O3	NAG	465	30.713	23.517	75.108	1.00	71.03	AAAA O
ATOM	4613	C4	NAG	465	30.045	21.654	76.560	1.00	75.71	AAAA C
ATOM	4615	O4	NAG	465	29.993	22.409	77.793	1.00	76.79	AAAA O
ATOM	4617	C5	NAG	465	30.498	20.238	76.977	1.00	75.45	AAAA C
ATOM	4620	O6	NAG	465	29.461	19.647	77.930	1.00	75.64	AAAA O

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ATOM	4623	O6	HAG	465	28.389	19.239	77.142	1.00 76.25	AAAA O
ATOM	4619	O5	HAG	465	30.514	19.425	75.907	1.00 71.44	AAAA O
ATOM	4625	C1	HAG	467	49.927	11.058	87.926	1.00 96.51	AAAA C
ATOM	4627	C2	HAG	467	50.538	11.751	89.109	1.00 99.92	AAAA C
ATOM	4629	N2	HAG	467	49.662	12.898	89.459	1.00101.79	AAAA N
ATOM	4631	C7	HAG	467	49.299	13.021	90.759	1.00103.63	AAAA C
ATOM	4632	O7	HAG	467	49.541	12.267	91.586	1.00105.48	AAAA O
ATOM	4633	C8	HAG	467	48.526	14.239	91.102	1.00105.02	AAAA C
ATOM	4637	C3	HAG	467	51.967	12.134	88.802	1.00101.03	AAAA C
ATOM	4639	O3	HAG	467	52.535	12.761	89.949	1.00100.89	AAAA O
ATOM	4641	C4	HAG	467	52.643	10.771	88.506	1.00101.15	AAAA C
ATOM	4643	O4	HAG	467	54.067	10.834	88.441	1.00101.35	AAAA O
ATOM	4645	C5	HAG	467	52.039	10.160	87.219	1.00100.16	AAAA C
ATOM	4648	C6	HAG	467	52.746	8.852	86.934	1.00 99.75	AAAA C
ATOM	4651	O6	HAG	467	52.088	7.704	87.302	1.00101.54	AAAA O
ATOM	4647	O5	HAG	467	50.671	9.918	87.503	1.00 98.59	AAAA O
ATOM	4653	C1	HAG	469	55.375	46.143	66.863	1.00 48.45	AAAA C
ATOM	4655	C2	HAG	469	56.601	46.993	66.861	1.00 50.42	AAAA C
ATOM	4657	N2	HAG	469	57.106	47.015	65.451	1.00 51.50	AAAA N
ATOM	4659	C7	HAG	469	57.235	48.143	64.746	1.00 48.88	AAAA C
ATOM	4660	O7	HAG	469	56.849	49.101	65.234	1.00 55.62	AAAA O
ATOM	4661	C8	HAG	469	57.838	48.134	63.394	1.00 43.70	AAAA C
ATOM	4665	C3	HAG	469	57.608	46.491	67.844	1.00 49.62	AAAA C
ATOM	4667	O3	HAG	469	58.640	47.461	68.031	1.00 47.76	AAAA O
ATOM	4669	C4	HAG	469	56.843	46.263	69.172	1.00 48.47	AAAA C
ATOM	4671	O4	HAG	469	57.826	45.800	70.134	1.00 50.06	AAAA O
ATOM	4672	C5	HAG	469	55.847	45.130	68.959	1.00 50.81	AAAA C
ATOM	4675	C6	HAG	469	55.190	44.720	70.239	1.00 53.92	AAAA C
ATOM	4678	O6	HAG	469	54.829	45.551	71.193	1.00 56.25	AAAA O
ATOM	4674	O5	HAG	469	54.914	45.599	68.043	1.00 55.45	AAAA O
ATOM	4679	C1	FUC	470	53.830	46.395	71.203	1.00 61.17	AAAA C
ATOM	4681	C2	FUC	470	53.642	47.121	72.534	1.00 59.23	AAAA C
ATOM	4682	O2	FUC	470	54.861	46.876	73.241	1.00 55.14	AAAA O
ATOM	4685	C3	FUC	470	53.421	48.429	71.757	1.00 58.39	AAAA C
ATOM	4687	O3	FUC	470	53.381	49.515	72.637	1.00 56.30	AAAA O
ATOM	4689	C4	FUC	470	52.245	48.255	70.809	1.00 61.24	AAAA C
ATOM	4691	O4	FUC	470	51.061	47.904	71.544	1.00 63.74	AAAA O
ATOM	4693	C5	FUC	470	52.455	47.086	69.828	1.00 62.20	AAAA C
ATOM	4696	C6	FUC	470	51.462	46.723	68.784	1.00 59.15	AAAA C
ATOM	4695	O5	FUC	470	52.567	45.889	70.781	1.00 64.68	AAAA O
ATOM	4700	C1	NAG	471	58.034	46.760	71.149	1.00 37.00	AAAA C
ATOM	4702	C2	NAG	471	58.977	46.225	72.186	1.00 40.30	AAAA C
ATOM	4704	N2	NAG	471	58.958	44.787	72.509	1.00 36.82	AAAA N
ATOM	4706	C7	NAG	471	57.856	44.183	72.903	1.00 44.21	AAAA C
ATOM	4707	O7	NAG	471	56.892	44.744	72.885	1.00 51.50	AAAA O
ATOM	4708	C8	NAG	471	58.202	42.814	73.323	1.00 46.02	AAAA C
ATOM	4712	C3	NAG	471	58.901	47.250	73.291	1.00 34.50	AAAA C
ATOM	4714	O3	NAG	471	59.698	46.917	74.385	1.00 35.84	AAAA O
ATOM	4716	C4	NAG	471	59.645	48.488	72.694	1.00 38.52	AAAA C
ATOM	4718	O4	NAG	471	59.754	49.464	73.694	1.00 37.44	AAAA O
ATOM	4719	C5	NAG	471	59.056	48.958	71.332	1.00 36.94	AAAA C
ATOM	4723	C6	NAG	471	60.116	49.692	70.525	1.00 36.14	AAAA C
ATOM	4725	O6	NAG	471	61.166	50.390	71.080	1.00 43.49	AAAA O
ATOM	4721	O5	NAG	471	58.853	47.785	70.530	1.00 34.98	AAAA O
ATOM	4727	C1	NAG	472	61.035	49.984	73.959	1.00 53.37	AAAA C
ATOM	4729	C2	NAG	472	60.920	51.497	74.260	1.00 56.72	AAAA C
ATOM	4730	O2	NAG	472	59.924	51.584	75.272	1.00 62.11	AAAA O
ATOM	4733	C3	NAG	472	62.216	52.031	74.840	1.00 60.70	AAAA C
ATOM	4735	O3	NAG	472	62.028	53.337	75.383	1.00 60.70	AAAA O
ATOM	4736	C4	NAG	472	62.787	51.161	75.932	1.00 55.46	AAAA C
ATOM	4738	O4	NAG	472	64.085	51.595	76.171	1.00 57.16	AAAA O
ATOM	4740	C5	NAG	472	62.797	49.685	75.511	1.00 52.19	AAAA C
ATOM	4743	C6	NAG	472	63.458	48.905	76.595	1.00 50.32	AAAA C
ATOM	4746	O6	NAG	472	62.990	48.969	77.885	1.00 51.02	AAAA O
ATOM	4742	O5	NAG	472	61.443	49.407	75.200	1.00 53.33	AAAA O
ATOM	4748	C1	NAG	473	62.594	54.401	74.672	1.00 72.61	AAAA C
ATOM	4750	C2	NAG	473	62.417	55.679	75.569	1.00 75.28	AAAA C
ATOM	4751	O2	NAG	473	63.378	56.709	75.348	1.00 74.98	AAAA O
ATOM	4754	C3	NAG	473	60.977	56.163	75.493	1.00 78.65	AAAA C
ATOM	4756	O3	NAG	473	60.941	57.447	76.148	1.00 79.16	AAAA O
ATOM	4758	C4	NAG	473	60.344	56.204	74.114	1.00 78.79	AAAA C
ATOM	4760	O4	NAG	473	58.983	56.571	74.178	1.00 78.93	AAAA O
ATOM	4762	C5	NAG	473	60.499	54.802	73.474	1.00 76.85	AAAA C
ATOM	4765	C6	NAG	473	59.968	54.490	72.091	1.00 74.73	AAAA C
ATOM	4768	O6	NAG	473	60.239	55.469	71.138	1.00 71.39	AAAA O
ATOM	4764	O5	NAG	473	61.916	54.562	73.463	1.00 74.97	AAAA O
ATOM	4408	CB	ALA	479	42.462	74.494	16.374	1.00 82.09	BBBB C
ATOM	4409	C	ALA	479	40.017	74.702	17.001	1.00 91.42	BBBB C
ATOM	4410	O	ALA	479	40.393	75.108	18.103	1.00 96.11	BBBB O
ATOM	4413	N	ALA	479	40.696	74.461	14.624	1.00 86.42	BBBB N
ATOM	4415	CA	ALA	479	41.033	74.108	16.033	1.00 89.85	BBBB C
ATOM	4416	N	ALA	480	38.749	74.752	16.610	1.00 92.12	BBBB N
ATOM	4418	CA	ALA	480	37.684	75.264	17.467	1.00 91.26	BBBB C
ATOM	4419	CB	ALA	480	37.925	76.731	17.769	1.00 86.84	BBBB C
ATOM	4420	C	ALA	480	36.306	75.030	16.849	1.00 91.39	BBBB C

Figure 1A-43

ATOM	4421	O	ALA	490	35.413	74.647	17.610	1.00	93.79	6588 O
ATOM	4422	N	GLN	491	36.135	75.304	15.564	0.01	89.69	8866 N
ATOM	4424	CA	GLN	491	34.832	75.164	14.915	1.00	87.19	8888 C
ATOM	4425	CB	GLN	491	34.471	76.492	14.221	0.01	92.74	8888 C
ATOM	4426	CG	GLN	491	34.277	77.627	15.220	1.00	99.93	8888 C
ATOM	4427	CD	GLN	491	34.067	79.003	14.626	1.00	103.59	8888 C
ATOM	4428	OE1	GLN	491	35.011	79.777	14.381	1.00	103.27	8888 O
ATOM	4429	NE2	GLN	491	32.792	79.328	14.398	1.00	108.00	8888 N
ATOM	4432	C	GLN	491	34.755	73.947	14.005	1.00	95.31	8888 C
ATOM	4433	O	GLN	491	33.736	73.508	13.456	1.00	83.41	8888 O
ATOM	4434	N	LYS	492	35.849	73.188	13.908	1.00	82.85	8888 N
ATOM	4436	CA	LYS	492	35.982	71.990	13.089	1.00	73.49	8888 C
ATOM	4437	CB	LYS	492	37.377	71.930	12.480	1.00	73.13	8888 C
ATOM	4438	CG	LYS	492	38.287	73.128	12.494	1.00	76.33	8888 C
ATOM	4439	CD	LYS	492	39.413	72.968	11.471	1.00	80.62	8888 C
ATOM	4440	CE	LYS	492	39.985	74.310	11.027	0.01	76.66	8888 C
ATOM	4441	NZ	LYS	492	41.252	74.136	10.262	0.01	76.29	8888 N
ATOM	4445	C	LYS	492	35.779	70.701	13.872	1.00	67.70	8888 C
ATOM	4446	O	LYS	492	35.879	70.744	15.098	1.00	69.99	8888 O
ATOM	4447	N	LEU	493	35.530	69.585	13.199	1.00	61.47	8888 N
ATOM	4449	CA	LEU	493	35.193	68.356	13.896	1.00	59.03	8888 C
ATOM	4450	CB	LEU	493	34.256	67.529	13.039	1.00	55.20	8888 C
ATOM	4451	CG	LEU	493	32.779	67.860	12.875	1.00	61.94	8888 C
ATOM	4452	CD1	LEU	493	32.405	69.154	13.595	1.00	44.78	8888 C
ATOM	4453	CD2	LEU	493	32.433	67.707	11.395	1.00	44.63	8888 C
ATOM	4454	C	LEU	493	36.421	67.509	14.229	1.00	59.73	8888 C
ATOM	4455	O	LEU	493	36.465	66.709	15.165	1.00	57.22	8888 O
ATOM	4456	N	ILE	494	37.345	67.543	13.262	1.00	56.21	8888 N
ATOM	4458	CA	ILE	494	38.597	66.822	13.367	1.00	52.58	8888 C
ATOM	4459	CB	ILE	494	38.480	65.390	12.870	1.00	50.27	8888 C
ATOM	4460	CG2	ILE	494	37.769	65.319	11.524	1.00	44.85	8888 C
ATOM	4461	CG1	ILE	494	39.870	64.766	12.756	1.00	39.78	8888 C
ATOM	4462	CD1	ILE	494	39.888	63.291	12.404	1.00	30.43	8888 C
ATOM	4463	C	ILE	494	39.623	67.645	12.608	1.00	53.49	8888 C
ATOM	4464	O	ILE	494	39.158	68.568	11.942	1.00	48.33	8888 O
ATOM	4465	N	SER	495	40.911	67.499	12.887	1.00	50.86	8888 N
ATOM	4467	CA	SER	495	41.898	68.335	12.209	1.00	49.78	8888 C
ATOM	4468	CB	SER	495	41.969	69.753	12.747	1.00	46.06	8888 C
ATOM	4469	OG	SER	495	43.190	70.035	13.376	1.00	63.03	8888 O
ATOM	4471	C	SER	495	43.294	67.711	12.240	1.00	50.57	8888 C
ATOM	4472	O	SER	495	43.510	66.601	12.740	1.00	46.55	8888 O
ATOM	4473	N	GLU	496	44.246	68.389	11.604	1.00	52.16	8888 N
ATOM	4475	CA	GLU	496	45.624	67.874	11.509	1.00	59.12	8888 C
ATOM	4476	CB	GLU	496	46.547	68.683	10.598	1.00	59.71	8888 C
ATOM	4477	CG	GLU	496	46.221	70.162	10.568	1.00	76.75	8888 C
ATOM	4478	CD	GLU	496	47.370	71.045	10.983	1.00	80.53	8888 C
ATOM	4479	OE1	GLU	496	48.315	70.404	11.472	1.00	91.67	8888 O
ATOM	4480	OE2	GLU	496	47.480	72.289	10.897	1.00	86.00	8888 O
ATOM	4481	C	GLU	496	46.272	67.773	12.896	1.00	56.50	8888 C
ATOM	4482	O	GLU	496	46.768	66.747	13.326	1.00	49.83	8888 O
ATOM	4483	N	GLU	497	45.955	68.738	13.732	1.00	58.37	8888 N
ATOM	4485	CA	GLU	497	46.129	68.736	15.169	1.00	59.36	8888 C
ATOM	4486	CB	GLU	497	45.303	69.887	15.729	1.00	61.32	8888 C
ATOM	4487	CG	GLU	497	45.645	70.232	17.159	1.00	79.21	8888 C
ATOM	4488	CD	GLU	497	46.397	71.545	17.177	1.00	86.09	8888 C
ATOM	4489	OE1	GLU	497	45.768	72.610	17.320	1.00	92.00	8888 O
ATOM	4490	OE2	GLU	497	47.637	71.452	17.026	1.00	96.51	8888 O
ATOM	4491	C	GLU	497	45.735	67.436	15.841	1.00	58.84	8888 C
ATOM	4492	O	GLU	497	46.121	67.018	16.761	1.00	61.93	8888 O
ATOM	4493	N	ASP	498	44.748	66.661	15.474	1.00	56.50	8888 N
ATOM	4495	CA	ASP	498	44.446	65.347	15.932	1.00	55.61	8888 C
ATOM	4496	CB	ASP	498	42.947	64.977	15.699	1.00	51.22	8888 C
ATOM	4497	CG	ASP	498	42.047	66.008	16.267	1.00	45.27	8888 C
ATOM	4498	OD1	ASP	498	42.114	66.563	17.387	1.00	56.45	8888 O
ATOM	4499	OD2	ASP	498	41.151	66.399	15.492	1.00	55.11	8888 O
ATOM	4500	C	ASP	498	45.296	64.211	15.238	1.00	58.91	8888 C
ATOM	4501	O	ASP	498	44.967	63.042	15.634	1.00	57.00	8888 O
ATOM	4502	N	LEU	499	45.933	64.513	14.163	1.00	57.39	8888 N
ATOM	4504	CA	LEU	499	46.659	63.426	13.528	1.00	64.03	8888 C
ATOM	4505	CB	LEU	499	46.722	63.677	12.024	1.00	62.69	8888 C
ATOM	4506	CG	LEU	499	45.746	62.788	11.226	1.00	53.71	8888 C
ATOM	4507	CD1	LEU	499	44.324	63.243	11.514	1.00	51.88	8888 C
ATOM	4508	CD2	LEU	499	46.032	62.967	9.766	1.00	55.20	8888 C
ATOM	4509	C	LEU	499	48.017	63.355	14.210	1.00	68.12	8888 C
ATOM	4510	O	LEU	499	48.860	62.560	13.838	1.00	71.57	8888 O
ATOM	4511	N	ASN	500	48.306	64.318	15.063	1.00	68.24	8888 N
ATOM	4513	CA	ASN	500	49.497	64.424	15.855	1.00	75.04	8888 C
ATOM	4514	CB	ASN	500	49.734	65.910	16.187	1.00	84.46	8888 C
ATOM	4515	CG	ASN	500	51.191	66.105	16.589	1.00	98.83	8888 C
ATOM	4516	OD1	ASN	500	52.092	65.342	16.178	1.00	97.25	8888 O
ATOM	4517	ND2	ASN	500	51.459	67.128	17.407	1.00	100.47	8888 N
ATOM	4520	C	ASN	500	49.350	63.610	17.130	1.00	80.30	8888 C
ATOM	4521	O	ASN	500	49.891	62.484	17.264	1.00	80.97	8888 O
ATOM	4521	OT	ASN	500	48.510	64.012	18.001	1.00	89.51	8888 O
ATOM	4770	S	SUL	493	37.234	-7.808	65.465	1.00	108.87	8888 S

Figure 1A-44

ATOM	4771	O1	SUL	493	38.492	-7.921	66.315	1.00112.65	DDDD O
ATOM	4772	O2	SUL	493	37.611	-7.973	64.029	1.00110.21	DDDD O
ATOM	4773	O3	SUL	493	36.533	-6.555	65.856	1.00109.93	DDDD O
ATOM	4774	O4	SUL	493	36.333	-8.978	65.639	1.00107.58	DDDD O
ATOM	4775	S	SUL	494	56.567	19.753	66.302	1.00109.91	DDDD S
ATOM	4776	O1	SUL	494	56.597	19.128	67.659	1.00107.98	DDDD O
ATOM	4777	O2	SUL	494	57.964	20.027	65.795	1.00112.59	DDDD O
ATOM	4778	O3	SUL	494	55.749	21.006	66.267	1.00111.35	DDDD O
ATOM	4779	O4	SUL	494	55.886	18.792	65.379	1.00109.86	DDDD O
ATOM	4780	S	SUL	495	34.533	11.240	75.722	1.00114.67	DDDD S
ATOM	4781	O1	SUL	495	35.274	12.213	76.595	1.00111.38	DDDD O
ATOM	4782	O2	SUL	495	35.476	10.329	74.974	1.00113.60	DDDD O
ATOM	4783	O3	SUL	495	33.552	11.860	74.748	1.00112.77	DDDD O
ATOM	4784	O4	SUL	495	33.773	10.278	76.604	1.00113.18	DDDD O
ATOM	4785	S	SUL	496	35.466	24.844	59.093	1.00 50.73	DDDD S
ATOM	4786	O1	SUL	496	35.613	24.843	60.607	1.00 62.59	DDDD O
ATOM	4787	O2	SUL	496	36.002	23.581	58.571	1.00 48.59	DDDD O
ATOM	4788	O3	SUL	496	35.880	26.084	58.455	1.00 56.74	DDDD O
ATOM	4789	O4	SUL	496	33.958	24.953	59.034	1.00 59.34	DDDD O
ATOM	4790	S	SUL	497	47.653	-2.303	70.199	1.00 68.98	DDDD S
ATOM	4791	O1	SUL	497	47.849	-1.058	70.996	1.00 68.52	DDDD O
ATOM	4792	O2	SUL	497	48.594	-2.509	69.072	1.00 70.94	DDDD O
ATOM	4793	O3	SUL	497	46.187	-2.393	69.810	1.00 73.47	DDDD O
ATOM	4794	O4	SUL	497	47.799	-3.446	71.129	1.00 71.33	DDDD O
ATOM	4795	S	SUL	498	56.527	35.758	75.513	1.00 71.48	DDDD S
ATOM	4796	O1	SUL	498	55.879	35.013	76.621	1.00 72.97	DDDD O
ATOM	4797	O2	SUL	498	57.759	34.996	75.167	1.00 69.11	DDDD O
ATOM	4798	O3	SUL	498	56.619	37.237	75.785	1.00 72.45	DDDD O
ATOM	4799	O4	SUL	498	55.623	35.809	74.330	1.00 72.74	DDDD O
ATOM	4800	S	SUL	499	40.639	27.365	69.499	1.00 74.04	DDDD S
ATOM	4801	O1	SUL	499	40.218	26.039	70.045	1.00 76.00	DDDD O
ATOM	4802	O2	SUL	499	42.089	27.608	69.835	1.00 75.15	DDDD O
ATOM	4803	O3	SUL	499	39.823	28.467	70.098	1.00 77.27	DDDD O
ATOM	4804	O4	SUL	499	40.424	27.245	68.018	1.00 75.70	DDDD O
ATOM	4805	S	SUL	500	44.996	53.228	20.568	1.00 83.89	DDDD S
ATOM	4806	O1	SUL	500	45.080	54.400	21.461	1.00 84.79	DDDD O
ATOM	4807	O2	SUL	500	46.109	52.266	20.827	1.00 90.38	DDDD O
ATOM	4808	O3	SUL	500	45.032	53.674	19.135	1.00 92.23	DDDD O
ATOM	4809	O4	SUL	500	43.762	52.396	20.723	1.00 91.61	DDDD O
ATOM	4810	OW	WAT	501	29.970	6.904	77.713	1.00 34.84	DDDD O
ATOM	4813	OW	WAT	502	42.522	18.998	78.232	1.00 55.27	DDDD O
ATOM	4816	OW	WAT	503	37.561	21.003	67.518	1.00 41.63	DDDD O
ATOM	4819	OW	WAT	504	50.446	5.721	63.485	1.00 57.37	DDDD O
ATOM	4822	OW	WAT	505	56.668	24.854	72.729	1.00 57.34	DDDD O
ATOM	4825	OW	WAT	506	50.605	57.695	22.727	1.00 54.26	DDDD O
ATOM	4828	OW	WAT	507	55.123	37.781	61.204	1.00 43.71	DDDD O
ATOM	4831	OW	WAT	508	17.414	-9.070	74.793	1.00 48.79	DDDD O
ATOM	4834	OW	WAT	509	44.263	20.885	63.811	1.00 28.64	DDDD O
ATOM	4837	OW	WAT	510	45.085	19.708	84.433	1.00 49.09	DDDD O
ATOM	4840	OW	WAT	511	33.537	1.927	71.115	1.00 60.39	DDDD O
ATOM	4843	OW	WAT	512	19.279	4.902	75.254	1.00 55.23	DDDD O
ATOM	4846	OW	WAT	513	11.502	-0.835	68.996	1.00 57.51	DDDD O
ATOM	4849	OW	WAT	514	24.591	17.207	56.665	1.00 56.36	DDDD O
ATOM	4852	OW	WAT	515	56.947	34.914	62.552	1.00 36.47	DDDD O
ATOM	4855	OW	WAT	516	58.092	39.983	66.234	1.00 30.34	DDDD O
ATOM	4858	OW	WAT	517	48.308	40.726	56.768	1.00 81.69	DDDD O
ATOM	4861	OW	WAT	518	25.776	2.355	85.630	1.00 66.34	DDDD O
ATOM	4864	OW	WAT	519	30.644	68.108	30.765	1.00 82.28	DDDD O
ATOM	4867	OW	WAT	520	38.739	54.257	43.611	1.00 43.42	DDDD O
ATOM	4870	OW	WAT	521	22.986	4.470	64.871	1.00 48.71	DDDD O
ATOM	4873	OW	WAT	522	30.938	50.249	19.364	1.00 54.00	DDDD O
ATOM	4876	OW	WAT	523	32.413	9.061	42.441	1.00 44.45	DDDD O
ATOM	4879	OW	WAT	524	41.019	42.560	55.653	1.00 43.40	DDDD O
ATOM	4882	OW	WAT	525	54.268	51.393	37.513	1.00 55.10	DDDD O
ATOM	4885	OW	WAT	526	37.130	13.599	81.397	1.00 46.49	DDDD O
ATOM	4888	OW	WAT	527	42.585	10.244	84.472	1.00 35.95	DDDD O
ATOM	4891	OW	WAT	528	43.661	61.633	18.450	1.00 41.05	DDDD O
ATOM	4894	OW	WAT	529	27.980	19.862	53.348	1.00 54.59	DDDD O
ATOM	4897	OW	WAT	530	59.527	38.520	64.116	1.00 37.96	DDDD O
ATOM	4900	OW	WAT	531	22.451	1.046	57.437	1.00 59.31	DDDD O
ATOM	4903	OW	WAT	532	30.380	16.123	70.205	1.00 40.39	DDDD O
ATOM	4906	OW	WAT	533	46.835	27.888	65.854	1.00 52.34	DDDD O
ATOM	4909	OW	WAT	534	39.446	49.001	45.379	1.00 46.05	DDDD O
ATOM	4912	OW	WAT	535	46.992	51.272	50.722	1.00 52.62	DDDD O
ATOM	4915	OW	WAT	536	44.263	18.776	73.017	1.00 40.61	DDDD O
ATOM	4918	OW	WAT	537	33.670	58.861	20.848	1.00 51.56	DDDD O
ATOM	4921	OW	WAT	538	52.469	21.639	73.804	1.00 61.98	DDDD O
ATOM	4924	OW	WAT	539	49.985	44.871	37.324	1.00 45.45	DDDD O
ATOM	4927	OW	WAT	540	24.074	-1.791	60.077	1.00 40.40	DDDD O
ATOM	4930	OW	WAT	541	35.207	0.714	79.039	1.00 51.34	DDDD O
ATOM	4933	OW	WAT	542	31.231	-1.176	62.362	1.00 48.33	DDDD O
ATOM	4936	OW	WAT	543	41.726	-5.156	55.290	1.00 60.67	DDDD O
ATOM	4939	OW	WAT	544	48.564	37.335	72.612	1.00 71.66	DDDD O
ATOM	4942	OW	WAT	545	49.501	40.030	67.582	1.00 44.88	DDDD O
ATOM	4945	OW	WAT	546	54.851	7.997	60.018	1.00 49.91	DDDD O

Figure 1A-45

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ATOM   1948  CA  HAT   547      30.459 -14.058  70.554  1.00 84.42      DDDD 0
ATOM   1951  CA  HAT   548      57.310  32.779  60.848  1.00 50.77      DDDD 0
END
```

Figure 1A-46

Sequence Alignment of hIGF-1R, hIR and hIRR ectodomains.

Derived by use of the PileUp program in the software package of the Genetics Computer Group, 575 Science Drive, Madison, Wisconsin, USA.

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Symbol Comparison table: GenRunData:PileUpPep.Cmp  CompCheck: 1254

                 GapWeight: 3.0
           GapLengthWeight: 0.1

Name: Higf1r          Len:   972  Check: 1781  Weight:  1.00
Name: Hir             Len:   972  Check: 2986  Weight:  1.00
Name: Hirr            Len:   972  Check: 9819  Weight:  1.00

                .          *                    *
Higf1r  .....EICGP GIDIRNDYQQ LKRLENCTVI EGYLHILLIS K..AEDYRSY 43
  Hir   HLYPGEVC.P GMDIRNNLTR LHELENCSVI EGHLQILLMF KTRPEDFRDL 49
  Hirr  ....MNVC.P SLDIRSEVAE LRQLENCSVV EGHLQILLMF TATGEDFRGL 45

Higf1r  RFPKLTVITE YLLLFRVAGL ESLGDLFPNL TVIRGWKLFY NYALVIFEMT 93
  Hir   SFPKLIMITD YLLLFRVYGL ESLKDLFPNL TVIRGSRLFF NYALVIFEMV 99
  Hirr  SFPRLTQVTD YLLLFRVYGL ESLRDLFPNL AVIRGTRLFL GYALVIFEMP 95

                                              *
Higf1r  NLKDIGLYNL RNITRGAIRI EKNADLCYLS TVDWSLILDA VSNNYIVGNK 143
  Hir   HLKELGLYNL MNITRGSVRI EKNNELCYLA TIDWSRILDS VEDNYIVLNK 149
  Hirr  HLRDVALPAL GAVLRGAVRV EKNQELCHLS TIDWGLLQPA PGANHIVGNK 145

                 * *                 *              *   *   *  *
Higf1r  PPK.ECGDLC PGTMEEKPM. CEKTTINNEY NYRCWTTNRC QKMCPSTCGK 191
  Hir   DDNEECGDIC PGTAKGKTN. CPATVINGQF VERCWTHSHC QKVCPTICKS 198
  Hirr  LG.EECADVC PGVLGAAGEP CAKTTFSGHT DYRCWTSSHC QRVCPCPHG. 193

                  *     **    *   *          *  *          *    *
Higf1r  RACTENNECC HPECLGSCSA PDNDTACVAC RHYYYAGVCV PACPPNTYRF 241
  Hir   HGCTAEGLCC HSECLGNCSQ PDDPTKCVAC RNFYLDGRCV ETCPPPYYHF 248
  Hirr  MACTARGECC HTECLGGCSQ PEDPRACVAC RHLYFQGACL WACPPGTYQY 243

                     *       *      *---------*          *   *
Higf1r  EGWRCVDRDF CANILSAES. ...SDSEGFV IHDGECMQEC PSGFIRNGSQ 287
  Hir   QDWRCVNFSF CQDLHHKCKN SRRQGCHQYV IHNNKCIPEC PSGYTMNSSN 298
  Hirr  ESWRCVTAER CASLHSVPG. ....RASTFG IHQGSCLAQC PSGFTRNSS. 287

                     *   *    *   *                    *
Higf1r  SMYCIPCEGP CPKVCEEEKK TKTIDSVTSA QMLQGCTIFK GNLLINIRRG 337
  Hir   .LLCTPCLGP CPKVCHLLEG EKTIDSVTSA QELRGCTVIN GSLIINIRGG 347
  Hirr  SIFCHKCEGL CPKECKV..G TKTIDSIQAA QDLVGCTHVE GSLILNLRQG 337

Higf1r  NNIASELENF MGLIEVVTGY VKIRHSHALV SLSFLKNLRL ILGEEQLEGN 387
  Hir   NNLAAELEAN LGLIEEISGY LKIRRSYALV SLSFFRKLRL IRGETLEIGN 397
  Hirr  YNLEPQLQHS LGLVETITGF LKIKHSFALV SLGFFKNLKL IRGDAMVDGN 387

                                                      *
Higf1r  YSFYVLDNQN LQQLWDWDHR NLTIKAGKMY FAFNPKLCVS EIYRMEEVTG 437
  Hir   YSFYALDNQN LRQLWDWSKH NLTITQGKLF FHYNPKLCLS EIHKMEEVSG 447
  Hirr  YTLYVLDNQN LQQLGSWVAA GLTIPVGKIY FAFNPRLCLE HIYRLEEVTG 435
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Figure 9A

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                                        *     !End of 1-462 fragment
Higflr  TKGRQSKGDI NTRNNGERAS CESDV  LHFTS TTTSKNRIII TWHRYRPPDY  487
   Hir  TKGRQERNDI ALKTNGDQAS CENEL  LKFSY IRTSFDKILL RWEPYWPPDF  497
  Hirr  TRGRQNKAEI NPRTNGDRAA CQTRT  LRFVS NVTEADRILL RWERYEPLEA  485
*
Higflr  RDLISFTVYY KEAPFKNVTE YDGQDACGSN SWNMVDVDLP .....PNKDV  532
   Hir  RDLLGFMLFY KEAPYQNVTE FDGQDACGSN SWTVVDIDPP LRSNDPKSQN  547
  Hirr  RDLLSFIVYY KESPFQNATE HVGPDACGTQ SWNLLDVELP L.....SRTQ  530

Higflr  EPGILLHGLK PWTQYAVYVK AVTLTMVEND HIRGAKSEIL YIRTNASVPS  582
   Hir  HPGWLMRGLK PWTQYAIFVK TL.VTFSDER RTYGAKSDII YVQTDATNPS  596
  Hirr  EPGVTLASLK PWTQYAVFVR AITLTTEEDS PHQGAQSPIV YLRTLPAAPT  580

Higflr  IPLDVLSASN SSSQLIVKWN PPSLPNGNLS YYIVRWQRQP QDGYLYRHNY  632
   Hir  VPLDPISVSN SSSQIILKWK PPSDPNGNIT HYLVFWERQA EDSELFELDY  646
  Hirr  VPQDVISTSN SSSHLLVRWK PPTQRNGNLT YYLVLWQRLA EDGDLYLNDY  630

        *                                 *   ** **  *
Higflr  CSKD.KIPIR KYADGTIDIE EVTENPKTEV CGGEKGPCCA C...PKTEAE  678
   Hir  CLKGLKLPSR TWS.PPFESE DSQKHNQSE. YEDSAGECCS C...PKTDSQ  691
  Hirr  CHRGLRLPTS N.NDPRFDGE DGDPEAEME. .....SDCCP CQHPPPGQVL  673

                                      α------->&lt;------β
Higflr  KQAEKEEAEY RKVFENFLHN SIFVPRPERK RRDVMQVANT TMSSRSRNTT  728
   Hir  ILKELEESSF RKTFEDYLHN VVFVPRPSRK RRSLGDVGNV TVAV?...TV  738
  Hirr  PPLEAQEASF QKKFENFLHN AITIPISPWK VTSINKSPQR D.SGRHRRAA  722

                                                            *
Higflr  AA..DTYNIT DPEELETEYP FFESRVDNKE RTVISNLRPF TLYRIDIHSC 776
   Hir  AAFPNTSSTS VPTSPEEHRP F..EKVVNKE SLVISGLRHF TGYRIELQAC 786
  Hirr  GPLRLGGNSS DFEIQEDKVP ........RE RAVLSGLRHF TEYRIDIHAC 764

             *
Higflr  NHEAEKLGCS ASNFVFARTM PAEGADDIPG PVTWEPRPEN SIFLKWPEPE 826
   Hir  NQDTPEERCS VAAYVSARTM PEAKADDIVG PVTHEIFENN VVHLMWQEPK 836
  Hirr  NHAAHTVGCS AATFVFARTM PHREADGIPG KVAWEASSKN SVLLRWLEPP 814

                                      *           *
Higflr  NPNGLILMYE IKYGS.QVED QRECVSRQEY RKYGGAKLNR LNPGNYTARI 875
   Hir  EPNGLIVLYE VSYRRYGDEE LHLCVSRKHF ALERGCRLRG LSPGNYSVRI 886
  Hirr  DPNGLILKYE IKYRRLGEEA TVLCVSRLRY AKFGGVHLAL LPPGNYSARV 864

Higflr  QATSLSGNGS WTDPVFFYVQ AKTGYENFIH L                     906
   Hir  RATSLAGNGS WTEPTYFYVT DYLDVPSNIA K                     917
  Hirr  RATSLAGNGS WTDSVAFYIL GPEEEDAGGL H                     895
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Figure 9B